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Temperature Control in Refrigerated Trucks

New Method Prevents Waste of Refrigerant and Maintains Desired Temperature in Body of Truck

Production of solid carbon dioxide has been expanded considerably during the past year.

Manufacturing companies have enlarged their plants and established new ones at important distributing points. It seems probable that it will not be long until it is quite generally available.

In many respects this refrigerant is ideal for meat trucks. Some packers have hesitated to use it for this purpose because its initial cost is higher than ice.

Others feel that its greater efficiency, lighter weight and absence of moisture, which causes rapid truck depreciation, more than justify this higher first cost of CO_2 for truck use.

Reduce Refrigeration Costs

Another factor deserving of consideration is the improved methods being developed to use this refrigerant more effectively, by means of which fairly constant temperatures can be maintained within truck bodies.

Quite often a truck with bunkers filled with solid carbon dioxide will be over-refrigerated. Later in the day when part of the solid carbon dioxide has evaporated, temperatures may rise above those desired.

Under such conditions there is a waste of refrigerant during part of the day. New systems of control are designed to prevent this waste and reduce the cost of refrigeration.

One method of controlling the temperature within the body of a truck refrigerated with solid carbon dioxide is described in the following article.

Refrigerating with CO_2

The advantages and the possibilities of solid carbon dioxide as a refrigerant in the meat industry are quite generally known and appreciated.

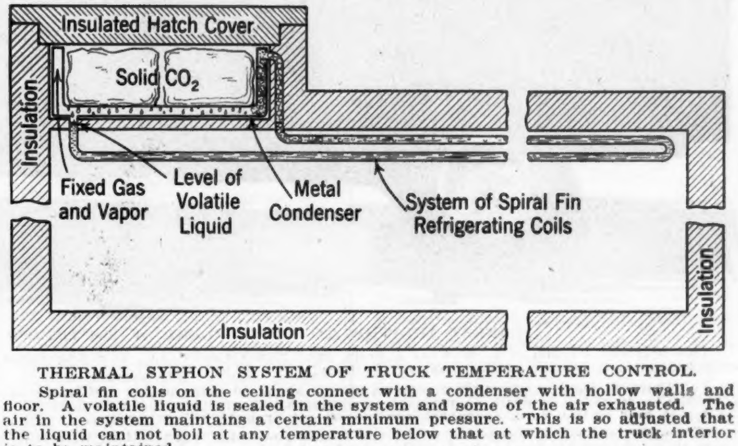
Its use for refrigerating insulated trucks is growing, and a considerable number of packers have found it valuable to include in packages of fresh and processed meats to be shipped by express or freight.

One Chicago packer is regularly shipping frankfurts by express as far east as Philadelphia, and fresh meats in barrels by ordinary freight to points in Michigan. He refrigerates the packages with solid carbon dioxide.

Increased use of this refrigerant seems likely with the advent of wrapped and packaged fresh consumer cuts, particularly in retail stores and to refrigerate packages in transit. Although there are numerous uses for solid carbon dioxide in the meat industry, it is quite generally conceded that a large field of usefulness will be to refrigerate motor trucks.

Constant Truck Temperature Desirable.

For this purpose it has the advantages of extremely low temperatures and a high heat-absorbing power per pound of refrigerant. It leaves no liquid residue and, therefore, is clean to use. Trucks in which it is to be used can be built lighter than those



THERMAL SYPHON SYSTEM OF TRUCK TEMPERATURE CONTROL.

Spiral fin coils on the ceiling connect with a condenser with hollow walls and floor. A volatile liquid is sealed in the system and some of the air exhausted. The air in the system maintains a certain minimum pressure. This is so adjusted that the liquid can not boil at any temperature below that at which the truck interior is to be maintained.

designed to be refrigerated with ice and salt.

Engineers have realized for some time that without some method of control, the refrigerating advantages of solid carbon dioxide can not be fully realized. This is because the refrigerating effect of a block of solid carbon dioxide is proportionate to its surfaces. A block 10 by 10 by 10 in., for example, has an area of 600 sq. in. and a certain refrigerating effect. Later when it is 5 by 5 by 5 in. it has a surface area of 150 sq. in., and its refrigerating effect will have diminished proportionately to the reduction in surface area. The smaller block will have, therefore, a refrigerating effect only about 20 per cent as great as it had originally.

Solid carbon dioxide has a temperature of —112 degs. F. Unless there is some means of control, the temperature inside a truck body may become too cold when the bunker is full. The refrigerant is wasted and products may be frozen. Later in the day when some of the CO_2 has evaporated, the temperature may rise above the safe point.

How the System Works.

The heat entering a refrigerated truck body varies considerably with outside temperatures. Under these conditions an even temperature within the truck body can be maintained only if refrigerating effect is so controlled as to absorb any increase in entering heat. If an approximately even temperature is maintained without control under such conditions, refrigeration must be taken from the load to offset partially variations in entering heat. This might be great enough to cause partial melting of quick-frozen products.

A number of methods of controlling temperatures within a truck body refrigerated with CO_2 have been worked out. One of these, designed by the William F. Baird Co., Winchester, Mass., is shown in the accompanying illustration. It consists essentially of spiral fin coils on the ceiling of the truck. These are connected at both ends to a condenser consisting of a metal box with hollow walls and floor. The coils are filled with a volatile liquid, such as ether, the surface of the liquid being in the vertical portions of the coils near the condenser. Most of the air is exhausted from the coils and the liquid is permanently sealed in the system.

When solid CO_2 is placed in the condenser, the vapor within its hollow walls condenses, the pressure falls, and the liquid boils, absorbing heat from the interior of the truck. To prevent too low a temperature, the air in the system maintains a certain minimum pressure. This pressure is so adjusted that the liquid can not boil at any temperature below that at which the truck interior is to be maintained.

Whenever the temperature rises above this point, vapor pressure within the liquid in the coils exceeds the pressure exerted on its surface by the vapor and air above it. Boiling commences and heat is transferred from the truck interior to the refrigerant by condensation.

When the temperature has again been reduced to the desired point, vapor pressure within the liquid becomes less than the pressure on its surface and boiling stops. Even a momentary rise at any time might cause local boiling.

Little Refrigerant Wasted.

There is evaporation at all temperatures, but as the surface of the volatile liquid is in vertical portions of the pipes, its area is small and the heat transfer by evaporation is slight.

In this system the refrigerant is protected from heat leaking through the insulation by the vacuum between the condenser walls. As heat reaches the CO_2 only when the refrigerating liquid boils, and as boiling occurs only when the temperature in the truck is above the desired temperature, little refrigerant is wasted.

The refrigerating effect of the gas given off by the CO_2 is utilized by circulating it through separate coils. This gas need not be liberated into the truck interior. The condenser may be either in, or remote from, the truck interior.

The apparatus is light in weight, weighing not more than 125 lbs. for large trucks.

It is also possible, when an insulated truck contains more than one compartment, to maintain different temperatures in the different divisions from the same CO_2.

LATEST ADDITION TO TRUCK FLEET OF SOUTHERN MEAT PACKER.

This attractive truck of L. A. Frey & Sons, Inc., New Orleans, La., is refrigerated with solid carbon dioxide, the refrigerant being carried in a bunker at the front of the body.

The truck is used in interurban service, makes about 50 stops a day and has a capacity of 5,000 lbs. of meat. About 50 lbs. of solid CO_2 is required daily to maintain a temperature of from 40 to 55 degs. F. Any product remaining sold at the end of the day is held in the truck overnight and moved out first the following day.

While the cost of refrigerating with solid CO_2 is somewhat higher than with salt and ice, this packer believes it is profitable to use this refrigerant, due to the fact that dead weight is reduced, full capacity of the truck can be carried, and there is less depreciation, because of the absence of any corrosion such as occurs when ice and salt are used.

Tests Show New Factors Affecting Pork Yields

Investigations Indicate That Sex Is an Important Factor in Yield of Principal Cuts from Hog Carcass

I — Ham Yields

Most packers are of the opinion that nice smooth, well-finished young barrows are just about the most profitable hogs they can buy.

But are they?

Has consideration been given to the possibility that hogs of one sex may yield better than similar types of the other sex?

Recent researches have indicated that gilts yield a higher percentage of the most valuable cuts than barrows of the same type and finish.

The hog crop is about equally divided, so far as sex is concerned. More barrows are marketed than gilts, because 15 to 20 per cent, roughly, of the gilts are held back for breeding purposes, later coming on the market as sows.

Higher Yield in Hams

One of the first indications brought out in the researches referred to was that gilts yield a higher percentage of hams than barrows.

Next to loins, hams are the most valuable cut the hog carcass produces. Therefore, carcasses of the same weight that yield a higher percentage of hams are more valuable to packers, all other factors being equal.

For a long time packers have bought just hogs. They have given too little thought to the kind of hogs—whether their buy would be of the same grade on the rail it seemed to be on the hoof.

The more experimental work done, the more the realization of the fact that on the basis of yield, packers buy a large percentage of their hogs away out of line.

Why Add Risk to Hog Buy

Even assuming that all hogs yield according to estimate, they are frequently bought at a cutting loss, either to supply a fresh meat demand or in the hope that by the time the product comes out of cure it will show a profit.

There is risk enough in the "hog buy," without assuming added unnecessary chances from the product yield standpoint.

Because of the importance of this subject to the entire packing industry, all data contributing to a better knowledge of the yield of the more valuable cuts is of especial interest to the packer.

In the following article—prepared especially for THE NATIONAL PROVISIONER—some important and valuable suggestions are made as a result of advanced studies carried on at the University of Wisconsin in collaboration with a well-known packer.

These relate only to ham yields. Later reports will be made on the yield of loins, bellies and shoulders of gilts, compared with those of barrows.

Sex Superiority in Ham Yields

By J. S. Park.

An interesting difference in ham yields between gilts and barrows has been brought to light in a series of six test trials recently conducted at the packing plant of Oscar Mayer & Co., Madison, Wisc.

This difference was noticed to be so consistent throughout all the trials that, in order to determine its real significance and probability of repeated occurence, the data obtained have been treated statistically.

The results point to the fact that heavy hams seem to be a female characteristic, so fixed and constant that barrows never equal or surpass any gilt in the same weight and type class.

In the usual method of testing a number of hogs, no distinction is made between gilts and barrows, and no records kept of individual weights and yields. This seems rather crude, in view of the fact that statistical technique is now being applied so universally in all fields of industry in making refined tests of all sorts, and that method requires accurate individual treatment.

Method of Testing.

The first step taken in these tests was to improve the method, by weighing each hog individually and accurately to the pound, at receipt, when filled, and again at slaughter, shrunk, and the warm carcass on the rail, so that the yield of products could be calculated definitely to both of the live weights and to the warm carcass of every hog.

Each hog was tattooed when weighed, for identification on the rail, and while still warm each ham, shoulder, belly and fat back was numbered serially, and each loin tagged to correspond. When the carcasses were cut the products were dropped into separate trucks, each piece being weighed individually on electric scales, the weights being recorded to the ounce, so that the yields of each cut are minutely accurate.

Types of Hogs Tested.

The attempt was made to get as wide a range of types as possible. Lots 1 and 6 were somewhat rangy, lots 3 and 4 intermediate in type, and lots 2 and 5 mostly short, heavy, fat, and moderately chuffy.

Lot 3 deserves particular mention, for it typified in external appearance, those characteristics being emphasized in describing the "meat type" hog. This lot averaged 201 pounds, live weight, filled, at receipt, and 191 pounds, shrunk, at slaughter.

The hogs were all intermediate in length, well finished but not fat, beautifully proportioned, and uniformly of an ideal type, firm and straight in the back, with neat and trim underline, and no excess jowl or flabby fat. They had been raised locally, the product of a three way cross, the get of a Yorkshire boar on four crossbred Berkshire by Poland sows.

Table 1 shows the average live weights, filled and shrunk, average

Gilts vs. Barrows

A careful check of 109 hog carcasses indicated that gilts yield a higher percentage of ham than barrows.

This check showed that for every 100 gilt carcasses, averaging 200 lbs. each, the packer would cut 136 more pounds of ham than from 100 barrow carcasses of the same average weight.

Figured at 20c a pound, this would mean that every 100 gilt carcasses would produce $27.50 more of hams than an equal number of barrows.

These deductions are explained in full in the accompanying article. Future articles will indicate wherein gilts not only produce more ham but more loin than barrows, but that the latter are heavier producers of the less desired shoulders.

warm carcass and ham weights, for the six lots.

Table 2 shows the yield of hams as obtained from the different lots of mixed sex, and Fig. 1 represents the same yields graphically.

Marked Difference in Ham Yields.

Some of the apparent conclusions that might be drawn from these data are:

(1) That (a) the rangy hogs, lots 1 and 6 outyield the other types in hams; (b) the intermediate hogs, by averaging lots 3 and 4, yield the lowest per cent of hams; and (c) the fat hogs, lots 2 and 5 yield higher than the "meat type" intermediates, but lower than the rangy type;

(2) That the live weight is too unstable a constant by which to figure yields, as seen by the fact that average yields differ as much as .8 of one per cent between filled and shrunk live weights, and in some individual cases much higher, which may be the difference between a good and a bad yield, when the fill of the hog is not definitely known;

(3) That there is a fairly close correlation between yield to warm carcass, and yield to live weight when the fill is known or constant, which points to the possible advisability of using yield to warm carcass for hog tests, because of its being a more stable constant.

In assembling the data from each lot, yields of gilts and barrows were tabulated separately, and in ascending order from light to heavy, according to weight of warm carcass. By averaging the yields for each sex separately, and subdividing into weight classes, it was discovered during the early tests that there was a marked and constant difference in yield of hams from gilts and barrows.

Table 3 shows the average weight of each lot divided by sex. Table 4 shows the ham yield of each lot by sex. This is also shown in Fig. 2, by the graphic method.

Crude Testing Method Inaccurate.

Table 5 shows the range within each lot of live weights, filled and shrunk, warm carcass and ham weights. From this table and the range in yield shown in Figures 1 and 2, it may readily be seen that:

(1) The usual crude method of testing by lots may be absolutely worthless as a criterion by which to judge the true yield of hogs, because of the wide range of variability present, both in the weights and yields of cuts.

(2) The actual weights and yields of lots overlap each other, or there are some hogs in each lot having the same weight, and some the same yield, as certain ones in each of the other lots.

TABLE 1. AVERAGE WEIGHT.

	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Total average
No. of individuals	10	13	19	13	24	30	109
Breeds	Yorkshire	Mixed	Cross Bred	Yorkshire	Chesters	Mixed	
Types	Rangy	Chuffy	Meat type	Intermediate	Chuffy	Rangy	
Live weight, filled	245.6	262.15	201.01	209.23	271.58	204.68	229.93
Live weight, shrunk	233.3	249.	191.22	201.54	260.70	193.33	219.06
Carcass wt., warm	188.	202.31	153.47	167.08	217.9	155.57	178.85
Hams, average weight	36.9	36.21	27.64	28.88	38.32	29.65	32.75

TABLE 2. AVERAGE HAM YIELDS.

	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Average
Breeds	Yorkshire	Mixed	Cross Bred	Yorkshire	Chesters	Mixed	
Types	Rangy	Chuffy	Meat type	Intermediate	Chuffy	Rangy	
No. of individuals	10	13	19	13	24	30	109
	%	%	%	%	%	%	%
Live weight, filled	15.02	13.81	13.75	13.81	14.42	14.49	14.24
Live weight, shrunk	15.81	14.54	14.46	14.33	15.02	15.34	14.95
Carcass wt., warm	19.63	17.90	18.01	17.29	17.97	19.08	18.31

TABLE 3. AVERAGE WEIGHTS, BY SEX.

	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Total average
Total individuals	10	13	19	13	24	30	109
Breeds	Yorkshire	Mixed	Cross Bred	Yorkshire	Chesters	Mixed	
Types	Rangy	Chuffy	Meat type	Intermediate	Chuffy	Rangy	
TABLE 3-A, GILTS.							
No. of individuals	9	8	9	5	13	20	64
Live weight, filled	246.44	259.25	196.33	216.2	269.23	207.25	231.02
Live weight, shrunk	234.11	246.25	186.11	207.2	259.4	195.7	219.91
Carcass wt., warm	188.44	201.13	149.78	173.6	215.6	157.85	179.31
Hams, avg. weight	37.11	36.81	27.31	32.25	39.23	30.43	33.54
TABLE 3-B, BARROWS.							
No. of individuals	1	5	10	8	11	10	45
Live weight, filled	238.	266.8	205.3	204.88	274.36	199.5	228.38
Live weight, shrunk	226.	253.4	195.8	198.	262.2	188.6	217.89
Carcass wt., warm	184.	204.2	157.8	163.	220.6	151.	178.2
Hams, avg. weight	35.	35.25	27.95	30.94	39.07	28.10	31.63

TABLE 4. AVERAGE HAM YIELDS, BY SEX.

	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Average	
Breeds	Yorkshire	Mixed	Cross Bred	Yorkshire	Chesters	Mixed		
Types	Rangy	Chuffy	Meat	Intermediate	Chuffy	Rangy		
A—GILTS.								
	%	%	%	%	%	%	%	
Live weight, filled	15.06	14.20	13.91	14.20	14.57	14.68	14.52	
Live weight, shrunk	15.85	14.95	14.67	14.82	15.12	15.55	15.25	
Carcass wt., warm	19.69	18.30	18.30	17.68	18.19	19.31	18.70	
B—BARROWS.								
Live weight, filled	14.74	13.21	13.61	13.54	14.24	14.09	13.85	
Live weight, shrunk	15.49	13.91	14.27	14.02	14.90	14.90	14.52	
Carcass wt., warm	19.02	17.26	17.77	17.02	17.71	18.61	17.75	
C—DIFFERENCE.							Statistical dif.	Arithmetical dif.
Live weight, filled	.32	.99	.30	.66	.33	.59	.53	.67
Live weight, shrunk	.36	1.04	.40	.80	.22	.65	.58	.73
Carcass wt., warm	.67	1.04	.53	.66	.48	.70	.68	.95

TABLE 5. WEIGHT RANGE.

		Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6
Breed		Yorkshire	Mixed Breeds	Cross Bred	Yorkshire	Chesters	Mixed Breeds
Type		Rangy	Chuffy	Meat	Intermediate	Chuffy	Rangy
A—GILTS.							
No. of individuals		9	8	9	5	13	20
Live wt., filled	maximum	293	288	220	240	325	280
	minimum	211	225	181	184	218	158
Live wt., shrunk	maximum	278	273	209	227	317	265
	minimum	201	214	168	178	211	149
Carcass, warm wt.	maximum	225	221	168	190	268	210
	minimum	155	171	134	147	169	124
Hams	maximum	42	39.5	31	33	49.25	39.5
	minimum	32	32.5	25	26.75	32.5	22.
B—BARROWS.							
No. of individuals		1	5	10	8	11	10
Live wt., filled	maximum	238	332	241	235	313	232
	minimum	238	219	178	167	231	160
Live wt., shrunk	maximum	226	315	229	223	304	218
	minimum	226	208	169	161	222	151
Carcass, warm wt.	maximum	184	269	185	190	262	182
	minimum	184	160	135	131	188	123
Hams	maximum	35	47.75	31.25	32	46.25	32
	minimum	35	26.75	25.5	22.75	33.75	23.5

(3) The grouping of hogs by sex, within each lot, makes a natural classification, which is not true of the groups by lots of mixed sexes. This may be seen in Fig. 2, where the range of the gilt yields is always higher than that for the barrows, which fact is submerged by the crude method of testing, as shown by Fig. 1.

These tests were originally intended to be an attempt to secure a mathematical and objective description of the "meat type" hog, by taking individual yields on hogs of that and other types for comparison, so that statistical knowledge might be had as to the relative worth of the various types, from which deductions could be drawn scientifically, in defining the "meat type".

Overcoming Chance Selection.

But a special interest in the particular phase of these tests that is reported here, was stimulated by a remark made by Mr. Oscar Mayer, Jr., who, when shown the figures for Lot 3, 19 meat type hogs, and it was observed how consistently the gilts outyielded the barrows, in hams, said, "That's mighty interesting, and it may be highly significant, but its real worth can't be determined by one test alone. If you get similar results from five or six such trials, I'd say that such a difference in yields between gilts and barrows, was exceedingly significant."

The only accurate and reliable way of overcoming the probability of a chance selection of hogs that are a misfit for their weight and type class, and of getting hogs of uniform weight and type into classes, by themselves, is to apply the statistical method to a large number of hogs whose individual weights, measurements, and yields have been ascertained. Until a sufficiently large number of hogs have been so tested, and classified by weight, type, finish, and sex, the statistical method is of no service. However, by disregarding all class distinctions but sex, and applying that method to these six lots of 109 hogs, we get the results shown in Tables 6 and 7 (which will be found on page 52.)

To statisticians, Tables 6 and 7 will be self-explanatory, but for others, a word of interpretation is necessary.

Superiority of Gilts Proven.

In Table 4, it will be noticed that by arithmetical treatment, there is a difference in the ham yield between the 109 gilts and barrows of this particular series, amounting to .67% of live weight filled, .73% of live weight shrunk, and .95% of warm carcass weight. This is the actual difference between the sexes of these hogs, but may not be the average difference between sexes of all other hogs. The average of the differences of the separate lots shows gilts outyielding barrows by .53% of live weight filled, .58% of live weight shrunk, and .68% of warm carcass, which according to statistical interpretation means that in all probability these are approximately the differences between sexes of all other hogs, within the range of those in this series.

In Table 6 the differences, and their probability of being due to some sig-

(Continued on page 52.)

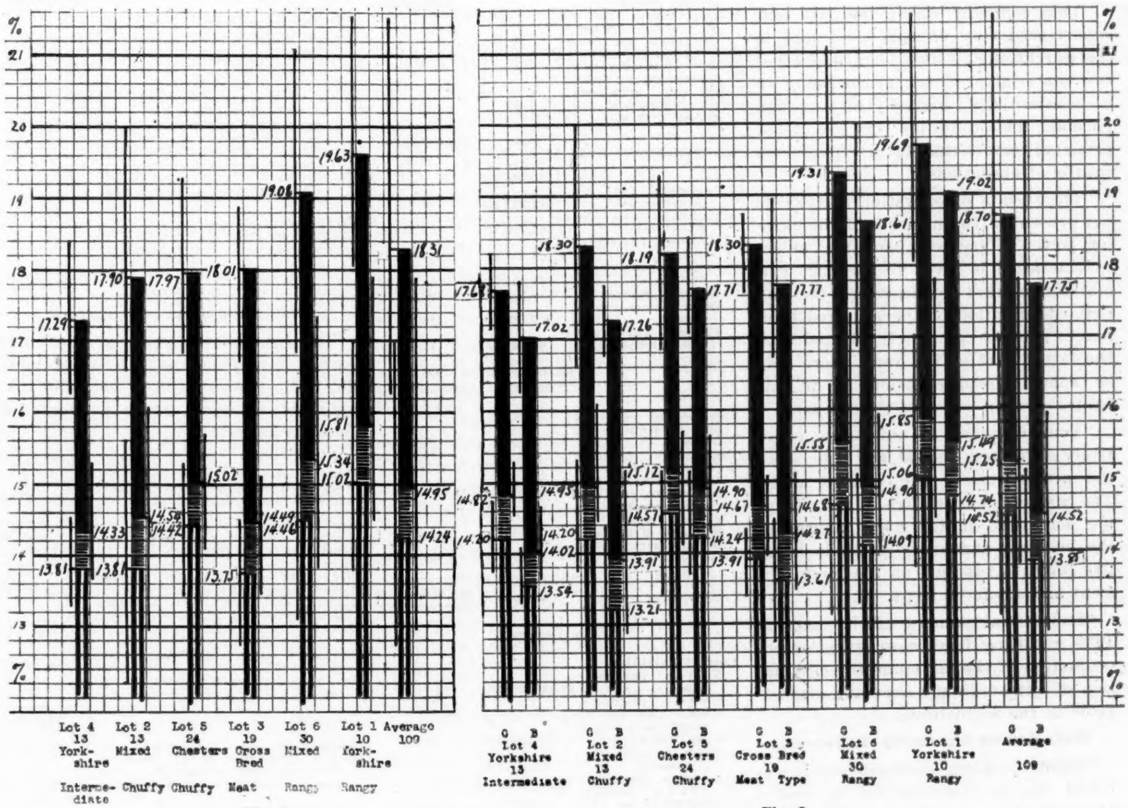


Fig. 1. Fig. 2.

GRAPHS SHOWING THE HAM YIELDS OF 109 HOGS BY LOTS AND BY SEX.

In Figs. 1 and 2, the tall black column represents the average yield of hams for each lot or sex, calculated to the warm carcass weight, with heads on, leaf, ham facings, and kidneys in; the bottom of the tall black column consisting of horizontal lines, indicates the average yield to shrunk live weight; and the top of each column of palisades, the percent of hams to filled live weight.

The lighter lines, parallel to the columns and on either side of them, represent the range in yield for each lot or sex; those on the left and at the head of each column, the range in yield to warm carcass; those on the left and at the bottom, the range in yield to filled live weight; and those on the right of each column, the range in yield to shrunk live weight.

Fig. 1 shows the yield of hams as obtained from the different lots of mixed sex.

Fig. 2 shows the ham yield of each lot by sex, the letter "G" indicating gilts and the letter "B" barrows.

Delayed Organization Influences Gobel's Earnings on $46,000,000 Sales

Sales totaling more than $46,000,000 are reported by Adolf Gobel, Inc., for the year ended December 28, 1929. Owing to conditions in the raw materials market and the fact that coordination of the acquired companies was not completely effected until near the end of the year, the net profit of the company amounted to $268,635.11.

After deductions for preferred stock dividends of the subsidiary companies, amounting to $129,922.26, the profit available for dividends amounted to $131,298.81.

This profit added to the surplus already on hand made the total surplus on December 28, 1929, $1,359,517.77.

Addressing the stockholders on the earnings of the year and the outlook for the current year, President Frank M. Firor said:

Company Now Effectively Organized.

"Your company during the past year experienced very unusual conditions in the purchasing of live hogs and other raw material products, prices being on a substantially higher level than normal. This condition was one of the principal factors that adversely affected results of operations.

"The results of operation in 1929 do not present a true measure of the earning power of your company, and unless consideration is given to the 1929 raw material market condition and the fact that coordination of the acquired companies was not completely effected until the latter part of the year, there may be some misapprehension as to the future earning power of the company.

"Your company is now more effectively organized than at any time since the acquisition of the various units. The management is alive to the changing conditions in the many phases of the business and every effort is being put forth to function on the most efficient and advanced basis.

"Substantial savings will be made in 1930, resulting from more effective coordination of the units and the elimination of extraordinary expenses attributable to the acquisitions.

Will Reduce Operating Expenses.

"Plant operating expenses will be reduced due to consolidation of operations in the eastern plants, and substantial reductions in route delivery expenses are anticipated as the result of a very comprehensive survey and analysis which has been made in this branch of the business.

"In view of the above, we look forward to favorable results for 1930."

The consolidated balance sheet as of December 28, 1929, of Adolf Gobel, Inc., and subsidiaries, excepting Jacob E. Decker & Sons, is as follows:

ASSETS.

Current assets:		
Cash		$ 324,318.59
Accounts receivable—trade, less reserve ($76,759.84) for bad debts		1,153,612.74
Notes and miscellaneous accounts receivable		69,238.84
Due from officers		4,000.00
Mortgages receivable		3,148.83
Inventories at cost, or market if lower than cost:		
Meat products (whereof $44,345.10 pledged per contra)	$1,059,881.97	
Meat products in transit	107,708.13	
Supplies	195,348.60	1,362,938.70
		$ 2,917,257.70
Prepaid expenses		139,909.77
Miscellaneous investments and accounts receivable		65,159.08
Investment in common stock of Jacob E. Decker & Sons (proportionate net worth of that company)		2,033,892.05
Capital assets (stated at cost of acquisition or in the case of certain subsidiaries at sound values determined by independent appraisers with subsequent additions at cost):		
	Gross.	Depreciation.
Construction in progress	$ 20,516.61	$
Land	550,566.36	
Leasehold and improvements	283,252.20	18,728.91
Buildings and improvements	2,545,196.50	232,919.75
Machinery and equipment	1,568,683.86	364,546.68
Office furniture and fixtures	71,354.71	20,586.06
Delivery equipment	535,534.50	183,597.28
Branch store equipment	202,066.50	26,701.74
Fixtures and equipment at Rye Beach	88,041.58	11,976.16
	$5,865,212.82	$ 850,056.58
		5,006,156.24
Unamortized discount and expense on bonds		58,955.03
Organization expenses		79,886.70
Goodwill, including agency contract, killing rights and provision routes, acquired incident to purchase of interests in subsidiary companies		1,784,786.65
		$12,086,003.22

LIABILITIES.

Current liabilities:		
Notes payable—banks	$1,446,500.00	
Notes payable—trade, secured by warehouse receipts, per contra	86,250.21	
Notes payable—miscellaneous	85,708.00	
Accounts payable—trade, including liability for merchandise in transit	314,204.75	
Miscellaneous accounts payable	138,162.52	
Due to officers	41,168.26	
Federal taxes on income	3,700.00	
Portion of funded debt maturing within one year	25,000.00	
Mortgages payable, on demand or maturing within one year	121,300.00	$ 2,211,993.74
Due to Jacob E. Decker & Sons—intercompany account		119,992.21
Mortgages payable, maturing after one year		311,000.00
Ten-year 6% sinking fund gold notes of Adolf Gobel, Inc., dated Sept. 1, 1926 (Authorized $1,000,000.00):		
Originally issued, less retired and cancelled $150,000.00	$ 700,000.00	
Less notes purchased and held by company	100,000.00	600,000.00
6½% First mortgage serial sinking fund gold bonds (on leasehold) of George Kern, Inc., due Nov. 1, 1937:		
Authorized and issued, less retired and cancelled $124,500.00	$ 550,500.00	
Less portion maturing within one year	25,000.00	525,500.00
Reserve for contingencies		7,545.20
6½% cumulative preferred stock of Merkel, Inc., par value $925,000.00, outstanding in the hands of the public, including dividends accrued		927,312.50
Net worth:		
Common stock, of no par value, including initial surplus:		
Authorized, 600,000 shares.		
Issued and outstanding 430,809½ shares—		
Old issue, subject to exchange of three shares of new issue for one share of old issue, 60 shares equivalent to 180 shares—430,989½ shares	$5,714,350.61	
Earned surplus, per statement attached	1,359,517.77	
Capital surplus	308,791.19	7,382,659.57
Contingent liabilities:		
Notes receivable discounted	$ 10,073.27	
		$12,086,003.22

Profit and Loss and Surplus.

The consolidated profit and loss and earned surplus, January 1 to December 28, 1929, of Adolf Gobel, Inc., and subsidiaries, including Jacob E. Decker & Sons, is as follows:

Net sales	$46,032,417.36
Cost of sales, selling, delivery, general and administrative expenses, including depreciation $351,514.30	45,475,011.56
Net profit from manufacturing and trading operations	$ 557,405.80
Other deductions (net)	118,637.13
Net profit available for interest, taxes and dividends	$ 438,768.67
Interest on funded debt, including amortization of discount and expense	137,471.94
Net profit subject to federal taxes on income	$ 301,296.73
Provision for federal taxes on income	32,661.62
Net profit	$ 268,635.11
Adolf Gobel, Inc., proportion	$ 261,221.07
Deduct proportion of dividends on preferred stock of subsidiary companies in the hands of the public	129,922.26
Profit available for dividends	$ 131,298.81
Surplus, January 1, 1929	1,081,146.16
Equity in surplus of Jacob E. Decker & Sons, January 1, 1929	136,042.87
Add miscellaneous surplus adjustments (net)	11,029.93
Surplus, December 28, 1929, to balance sheet	$ 1,359,517.77

The officers of the company are: Frank M. Firor, president; A. L. Eber-

(Continued on page 52.)

Consumer Attitude Toward Packaging of Meat

Pittsburgh Survey Sought to Find What Kinds and Shapes of Packages for Meat Cuts Buyers Liked Best

III—Preference for Package Materials, Shapes and Sizes

What kind of packages do consumers prefer for meat?

Do they want to see the product in the package?

Kinds of packages preferred and reasons for the preference are of much importance, both to packers and retail meat dealers.

This is why consumer preference for package materials, shapes and styles, formed an important part of the Pittsburgh study of consumer attitude toward packaging of meats.*

In conducting this part of the study the following steps were taken:

Sample Containers Made Up

1. Package manufacturers were asked to submit sample packages suitable for packaging sliced bacon and sirloin steak.

2. These packages were studied and subjected to experiment. Specifications were formulated for packages of various materials. The packages were designed to test—

(a) Consumer attitude toward and preference for various package materials when shape, size, color and closure are held constant; and,

(b) Consumer attitude toward and preference for various shapes and styles of each of the package materials. All packages were made in natural color and were without label, printing, design, or any other distinguishing external mark.

Bacon and Steak Used

3. Bacon was packaged in each of the sample containers designed for this purpose; also boneless sirloin steak.

4. These packages were exhibited in five retail stores in various sections of Pittsburgh.

5. Representatives of the Bureau of Business Research of the University of Pittsburgh interviewed customers visiting these stores and viewing the exhibits.

The effort in the arrangement of each exhibit and in the interviews was to bring out the following points:

What Preference and Why?

1. Attitude toward and preference for various package materials.

2. Attitude toward and preference for styles and shapes of each package material.

3. Preference as between bulk goods and displayed packages.

4. Reasons for choice in each of the preferences.

5. Additional price per pound customers would be willing to pay, if necessary, for various packages exhibited.

6. Quantity of product usually purchased at one time.

7. Number in family for which purchases are made.

*The study of consumer attitude toward meat packaging formed a part of a large

What Is the Leakage from Quick-Frozen Meat Cuts When Defrosted?

Anything new like merchandising of quick-frozen meat cuts arouses question in the minds of those accustomed to old methods.

Experts in the fish industry say that leakage of nutritive values from defrosted quick-frozen fish is an important point.

Immediately discussion arises as to such a condition in the case of meats.

The impression has been quite general in the meat industry that quickly-frozen meat cuts do not bleed, drip or leak when defrosted.

This is not strictly true, according to experts. Quickly-frozen cuts WILL leak when defrosted. But when cuts have been properly frozen the quantity of liquid that escapes should be little, if any greater, than that from similar unfrozen cuts under the same conditions.

Tests show the following facts:

When fresh meats are cut there is some leakage. This may extend over a considerable period of time.

The housewife is familiar with this situation. When she buys a steak, places it on a plate and puts the plate in the icebox, she is not disturbed the next day to find that some liquid has escaped.

Leakage in Fresh and Frozen Meats.

When a quick-frozen cut is allowed to defrost, leakage starts. And if such a cut is allowed to stand long enough, the amount of escaping liquid may be equal to or very slightly greater than would have escaped from a similar cut of the same weight in the same length of time. If the cut was frozen slowly, the leakage may reach excessive amounts over a period of time.

Recently the question of leakage from quick-frozen meats has come up for some discussion in the meat industry, and some packers have the impression that it is sufficient to create a merchandising drawback.

Tests have shown that when a quick-frozen cut is placed in the pan or oven without defrosting, it will show no difference from a fresh cut. If it is permitted to defrost before cooking it will show little more drip than from a fresh cut that had been allowed to stand for the same length of time.

Tests made some time ago to determine the loss in weight of quick-frozen cuts after thawing are interesting in this connection.

Tests Show Weight Losses.

One green belly weighing 12 lbs. 5 oz. before freezing weighed 12 lbs. 2¼ oz. after being defrosted. One-half ounce was lost during the freezing process, leaving a leakage loss of 2¼ oz.

One pork loin weighing 10 lbs. 3½ oz. before freezing weighed 10 lbs. 1½ oz. after being defrosted.

Three beef tenderloins weighing 14

(Continued on page 52.)

consumer study made in the city of Pittsburgh by the Bureau of Business Research of the University of Pittsburgh, under the direction of Dr. John H. Cover.

Cooperation by THE NATIONAL PROVISIONER with the University extended the inquiry into different phases of packaged meat preferences as an important part of this study.

This is the third of a series of articles reviewing this study.

Types of Stores Represented.

The five stores in which these exhibits were placed were chosen as a representative cross section of the stores of the city.

Store No. 1, located in a downtown market area, is a shopping market catering to a large variety of customers. It is a food store with all products attractively displayed.

Store No. 2 is a chain store located in a central shopping district. No. 3 is also a chain store, but located in a typical apartment house neighborhood. No. 4, another unit of a chain, is located in a good income residential section, where much of the buying is done by middle-class people.

Store No. 5 is a typical store, with first-class merchandise. The customers are of a high income group and about 90 per cent of the business is done by telephone.

Interviews numbering 388 were held in the five stores.

Transparent Wrapping Preferred.

As a result of the inquiries made regarding package material preferences for bacon, the Cellophane-wrapped package received 34 per cent of first choices. Glass was second with 31 per cent. Paper boxes were third, with 27 per cent of the first choices. Paper cartons and textiles each received less than 1 per cent of the total first choices.

Three per cent of the subjects gave no package preference, because of strong preferences for bulk goods.

Second and third choices were requested.

The transparent-wrapped package led in total choices, receiving 33 per cent of all replies. Glass received 30 per cent, and paper boxes 29 per cent of total choices.

38 Per Cent Preferred Bulk.

Thirty-eight per cent of the customers interviewed preferred bulk to package goods displayed.

Summarizing the results by stores, it was found that the preferences were quite similar.

In store No. 1, where a large percentage of the interviews were held, the transparent-wrapped package received 35 per cent of the total choices, glass received 29 per cent and paper boxes 25 per cent. Forty-two per cent preferred bulk to any of the packages; 10 per cent gave no reply.

Some variation in the results was shown in the interviews conducted in store No. 5. Here 47 per cent of the total replies placed paper boxes first, 22 chose glass, and 22 per cent the transparent-wrapped packages.

Telephone Trade Preference.

This is the only store in which a larger proportion of customers elected bulk to packaged goods. Sixty-one per cent preferred bulk. This is a charge and delivery service store, has a high quality trade, and most of the business is done by telephone.

It was felt by the investigators that this result would suggest a smaller demand for packaged meats in stores catering to telephone business. In such instances the significance of the package in display, facility in handling, etc., is minimized.

On the other hand, they point out, it is probably the history of packaged goods that their adoption began with the higher income consumer and sifted down to the lower. In this process bulk goods lost to competitive demand, until they were not even available to those of meager incomes.

Meanwhile the price differential between packaged and bulk goods narrowed and perhaps in instances disappeared. "However," the bureau says, "this evolutionary development is in a highly conjectural stage."

In the study of package preference for steak, 39 per cent of the first choices were for cellophane, 32 per cent for paper boxes, 9 per cent for glass and 1 per cent for paper cartons. Paper boxes received the largest percentage of second choices.

Majority Preference for Bulk Steak.

Sixty-two per cent of all subjects indicated that they prefer steak in bulk to any of the packages tested. While many reasons were given for bulk preferences, a significant factor was that steak in containers was an innovation. Many consumers had not thought of the possibility before.

As an evidence of the stronger preference for packaged product as it becomes better known, it was found that only 41 per cent of all interviewed preferred to buy bacon in bulk, while 74 per cent preferred to buy steak in bulk.

Each person interviewed in the five retail stores was asked which style of bacon container was preferred in each of the package materials. There was little choice between glass containers, although the tall glass jar with the entire length of the bacon visible had a slight advantage.

Also, there was little marked preference as between styles of paper cartons. One, however, was shown some preference. This was a cylindrical carton with slip-on top.

Type of Steak Container Preferred.

In the case of paper boxes there was a distinct preference for the box in which the bacon was visible. This box received more choices than any of the glass containers and was exceeded in number of choices only by the Cellophane-wrapped package. "Visibility is doubtless an important consideration," the report points out.

Paper boxes were the only package material of which more than one style was tested for sirloin steak. The box in which the steak was visible received most of the choices in all five stores. This box was chosen by 92 per cent of those making selections, as well as by a vast majority of voting persons in every store.

Each customer, following choice of container, was asked a reason for the selection. Convenience and cleanliness were mentioned most frequently. Thirty-eight per cent of all customers mentioned convenience and 36 per cent gave cleanliness as their reason for selecting a particular container. Seventeen per cent said that appearance determined their package selection and 17 per cent that an unobstructed view of the product was the determining factor.

Visibility Important in Packaging.

"Staff observation of the selection of a particular container by the subjects

(Continued on page 51.)

Service to the Trade

In the search for definite information on the public's attitude toward meat in packages compared with meat in bulk, THE NATIONAL PROVISIONER financed a study of this subject in the city of Pittsburgh.

The study was made by the Bureau of Business Research of the University of Pittsburgh. Pittsburgh packers, representatives of outside packers in Pittsburgh, and chain and independent retail stores gave hearty cooperation.

While the number of consumers studied was relatively small, they represented a good cross section of the consuming public in any city.

In addition to financing the study THE NATIONAL PROVISIONER has assumed full responsibility for publishing the results, which it is hoped will be of value to the packer, the manufacturer of wrapping and packaging materials, and ultimately to the retail meat dealer.

These results are summarized in this series of articles in THE NATIONAL PROVISIONER. The complete report can be secured in pamphlet form upon application to THE NATIONAL PROVISIONER, Chicago, accompanied by 4c in stamps.

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This will aid us in obtaining proper service for you from the Post Office.

Keep Out the Bunk

Packaged quick-frozen fresh meats have become the subject of much popular discussion and comment. This is well, as it is a departure the public should know more about.

Not only should consumers know what meats so prepared have to offer in the way of quality and palatability, but they should be informed of the price advantages that can be expected to accrue both to the producer of livestock and the consumer of meats as soon as the plan is fully worked out.

From the first discussion of quick freezing of meats, which appeared in THE NATIONAL PROVISIONER more than two years ago, its economic advantages have been pointed out.

The original article on this subject appeared in the issue of September 8, 1928, and raised the question whether or not quick-freezing could be made a stabilizing influence not only for meat but for livestock. At that time the idea that frozen meats when defrosted would be practically the same as fresh meats was new. Much experimenting has been done in the industry since then and many articles on the subject have appeared in this magazine.

Savings to be effected through packinghouse cutting of meats—not only in labor but in the conservation of materials—opportunity afforded the retailer to spend his time in merchandising and executive control rather than as a meat cutter, and finally the advantages to the consumer in grade, quality and price—all these have been stressed.

No one, and certainly not all of these improvements could be brought about without resulting in increased meat demand and a better return to the livestock producer.

But a regrettable feature of the publicity attendant upon this departure in meat merchandising has been the amount of bunk disseminated.

Only recently a writer whose material is printed in many small town and country newspapers attempted to point out what this new development may mean to the livestock producer. He said:

"If this method develops as it promises, the world center of the meat industry may shift from the United States to Argentina, Australia, or South Africa, where land and labor are cheap, and cattle and sheep can be raised at small cost."

Meats frozen and packaged ready for consumer acceptance would find no freer entry into the United States than fresh and frozen meats find at the present time. Fresh meat from South America would be barred for the same reason it is now, and meats from Australasia and Africa would be confronted with the same tariff barriers now faced.

Another ridiculous assertion has been made by salesmen of certain household mechanical refrigerators. They have pointed to sensational slaughtering and freezing methods which result in high perishability and thus create a demand for their type of equipment, according to their claim.

This sort of bunk is attributable to an ignorance which is inexcusable. Space writers, speakers and salesmen should inform themselves regarding this new method of packinghouse preparation of consumer cuts of fresh meats before they undertake to discuss the subject for the benefit of the public.

What's Under the Skin?

The old adage that "things are not always what they seem" is particularly true in judging hogs on foot in terms of their yield of hams, loins and bellies.

This was demonstrated recently in a judging contest held at Iowa State College. Four hogs were chosen and farmers participated in placing them on the basis of their cut-out value.

Of particular interest was the contest on hog No. 1. This animal was of the trim, bacon-type, weighing 223 lbs., and was a popular choice for first place.

Its yield of bellies was heavy, but it lacked in the production of hams and loins. While its dressing percentage was the highest of the four hogs in the contest, it was wasty "due to more gut capacity that was filled with fat." The hog had a heavy jowl and there were wasteful fat trimmings throughout the carcass.

The hog which was placed fourth on foot was first in its cut-out value.

While it is assumed that packer hog buyers know a good deal more about yield than the average producer does, there is little doubt but that frequent tests and checks could increase this knowledge to the advantage of the industry.

Packers have always checked their cattle buyers carefully against beef yield, but less attention has been paid to hog buying. With the growing practice of the industry in forcing hams, bellies and loins to carry much of the carcass cost and make a profit besides, it is important to know the type of hog that yields highest in these cuts.

It is particularly unfortunate when a hog that looks good on foot is a wasty fat producer on the pork cutting table.

One thing the packer must be sure of—that he does not pay a high price for fat, because under prevailing conditions there is no profit in it for him.

Practical Points for the Trade

Avoiding Gray Sausage

Off-color sausage is a common difficulty, particularly in the warmer months of the year, and many sausagemakers cannot find the cause. For this reason the advice of men long experienced in sausage manufacture is always of interest.

One of the oldest sausage makers in the industry writes regarding this trouble and his suggestions for avoiding it. He says:

Editor THE NATIONAL PROVISIONER:

Why does sausage turn gray?

This question comes up often, and will come oftener as the days get warmer.

Many have difficulty finding out the cause. The trouble appears off and on, sometimes does not occur for months, then again appears and holds on for a few days.

Gas in Meat Causes Gray Color.

In the first place, meats must be sweet and kept sweet. If they are ground and are to be held for any length of time to cure in a barrel or truck, here is where the sausagemaker must have experience or knowledge. Otherwise the cause of sausage turning gray passes unnoticed and may become a general trouble.

This cause is gas in the center of the meat mass. To be able to detect its presence, which is not clear to many and not taken seriously by many more, is a puzzle to some operators.

The meat may look all right but the gas is doing its work and passes on to many batches of goods. The smallest amount of gaseous meat in any batch of sausage will disfigure the finished product. If not noticeable at once, it will show in a day or so.

When curing sausage meats longer than 48 hours in barrels or trucks—which would mean that the meat is 18 to 24 inches thick—it should be borne in mind that this meat is packed at about 50 degs. It is then put in the cooler at 38 degs., or even as high as 45 degs. It has been the writer's experience that the temperature in the center of this meat is apt to rise because the outer temperature does not reach the center point in time to arrest the formation of gas.

Using Stale Sausage Poor Economy.

Sausagemakers are urged to keep an eye on this situation. It is well to reach down into the center of such packed goods and get a whiff, so as to become acquainted with this element.

Then, again, to include with fresh lots any stale, finished, or broken sausage, or to work sausage over again into new batches is poor economy and may cause great loss, as there is always danger of such meats being gassy.

If ever you have a batch of ready mixed sausage dough which you find too much for the day and want to hold over again till the next day, and in which there is cereal, tripe, cracklings, etc., it is likely that some change in the meat will be experienced. Therefore, only enough meat should be prepared for stuffing as it is possible to handle in each day's work.

For the best grades of sausage only meats should be used. Fillers are likely to cause too much moisture, which results in early mould and slime.

Avoid too Long a Cure.

It should be remembered, also, that sausage meats cured over a week lose their binding qualities, and are sometimes a cause of green showing up in the finished product.

Try this out for yourself. Take fully cured beef hams or pork hams and try to make sausage. You will see how poor is the binding quality of the meat.

In my opinion and experience, the best sausage, containing its full quota of water, is better if made from meats cured overnight. That is, chopped fine with salt, etc., and spread not over three inches thick on shelves. Such meat may be kept good for a few days if necessary, by turning it over.

Sausage meat gets gassy just as hams do in which the center will not cure. This is because the heat has not been expelled in due time either from the center of the ham or from the bone. This heat sets up a gas similar to ammonia and bleaches the meat.

It was my privilege to demonstrate sausage manufacture at the Industrial Exposition held at Cincinnati in 1884.

Freshest Meat Best for Sausage.

Full equipment for sausage making was installed, hot bulls were delivered, boned out, chopped, mixed, spiced, stuffed, smoked, cooked and sold to visitors as fast as finished. This was a most interesting and crowded exhibit. It lasted 30 days, and as far as I know it has never been duplicated.

I refer to this as an illustration that the finest sausage can be manufactured from meats that never saw the inside of a cooler. At two, three, or four o'clock in the morning the bulls were killed, hurriedly boned, and chopped while hot. This made a gluey, spongy mass.

We had no trouble in developing good color in smoke, as the saltpeter and spices act very readily on such meats. The best meat for every day sausage is the freshest, in my opinion.

Very truly yours,

LOUIS F. BUSCH.

Cincinnati, Ohio.

Grease in Tankage

A renderer wants to lower the grease content of his tankage. He says:

Editor The National Provisioner:

We use the wet rendering system and a hydraulic press. The grease content of our tankage is between 8 and 9 per cent. How can we reduce this?

This inquirer does not say whether or not his tankage includes blood and stick. If his grease content is around 8 to 9 per cent in tankage, to which neither blood nor stick has been added, this is about as low as he can expect to get in general practice.

Some producers claim to get less, but it is a question whether the extra effort does not cost more than the value of the grease recovered. Broken press cloths and other difficulties are likely to offset advantages gained in reducing the grease content to a very low point.

Finding Cooler Troubles

A packer who has been having some cooler troubles asks information regarding correct installation. He says:

Editor The National Provisioner:

We have been having trouble with our storage cooler, which is in the basement. When the temperature is above 30 degs. the floor is always wet, and is dry only when the temperature is down to around 26 degs.

The first summer we found that with a temperature of 26 degs. at six p.m., the thermometer would rise six to eight points by morning. We would also find beads of ice on the ceiling at some of the joints of the cork boards. This condition gradually grew worse, and the following summer, ice formed between the two layers of cork, and forced down some sections of the lower layer of cork boards.

In making repairs we found that only a 2 in. overlapping breaking joints had been allowed both in the width and length of the boards, thereby exposing the metal nails with which the first layer of cork is fastened to a wooden sub-ceiling directly to the seam or joint of the lower or second layer of cork, which is fastened to the upper layer by means of wooden skewers.

What in your judgment is the proper manner of breaking joints relative to measure of 12x36 in. cork boards, in conformity with first class workmanship?

It is difficut to give a satisfactory opinion regarding such a condition without seeing the installation. The desirable thing would be to have someone competent to pass on the conditions in general, see the cooler before making an analysis of the trouble.

In regard to the breaking of joints, perhaps the best method is to break the joints at least 6 in. one way and from 12 to 18 inches the other way, and never to use wooden skewers on any form of ceiling work.

It is possible that the floor above this cooler is a wet floor and leaking, or that the floor joists forming the ceiling of this room are not ventilated and the warm air confined therein condenses when the temperature drops at night, and leaks through the sheathing and the corkboard.

It is suggested that this inquirer have a reliable engineer examine the conditions and make recommendations to correct this trouble.

HOG HAIR FOR MATTRESSES.

The need for educating the consumer in meat matters has been the source of much discussion in the meat industry.

But, it seems, there are other products of the meat plant that are also misunderstood and about which consumers do not know as much as they should. One of these is hog hair.

There is a large potential market for hog hair in the mattress manufacturing industry. However, it appears, not as much of this meat plant by-product goes to this industry as its value for this purpose would justify. The reason, it seems, is that the properties of hog hair and how to use it to best advantage in mattress manufacture are not understood by many mattress manufacturers.

Some good information on hog hair for mattress manufacture was contained in an article on the subject, written by R. P. Kelley, Wilson & Co., which appeared recently in Bedding Manufacture, a business paper.

The hair from horse tails, the author says, is a superior article for mattress stuffing. However, the supply of this hair is limited and mattresses made with it are very expensive. But, properly used, hog hair is a good substitute. It closely approaches horse tail hair in tensile strength and readily takes the curl so desirable in a hair to be used for mattress stuffing.

To secure the best results with hog hair in mattress manufacture the hair must be used with a binding agent to hold it together. When this is provided a mattress stuffed with hog hair has a resilience that makes it particularly desirable.

The binding agent most satisfactory for this purpose, the article points out, is burlap. In this construction a pad of hair is interlaced with the burlap. Recent improvements in hog hair processing have made possible the spinning of a smaller and tighter rope thus securing a better curl in the hair.

Mattresses made of hog hair are clean and sanitary and are not cheap in the sense that they lack comfort and durability, the article concludes. Further they can be sold at a reasonable prices.

Your Cooling System

Most hot weather troubles can be traced to faulty refrigeration.

Do you ever have trouble with the refrigerating system in your plant?

Do you know how to take care of your condensers, brine circulation, refrigerating machines?

Is your insulation in good shape?

Cold air leaks cost money. They will eat you up if you don't watch out!

Care of a packinghouse refrigerating system is plainly and simply described in an article on "Refrigeration in the Meat Plant," by a packinghouse master mechanic, printed in a recent issue of THE NATIONAL PROVISIONER.

If you want a copy of the article, cut out this notice and send it with a 2-cent stamp to THE NATIONAL PROVISIONER, Old Colony Bldg., Chicago.

Brands & Trade Marks

In this column from week to week will be published trade marks of interest to readers of THE NATIONAL PROVISIONER.

Those under the head of "Trade Mark Applications" have been published for opposition, and will be registered at an early date unless opposition is filed promptly with the U. S. Patent Office.

TRADE MARK APPLICATIONS.

Roberts & Oake, Inc., Chicago, Ill. For sausage. Trade mark: COUNTRY MAID. Claims use since October 24, 1929. Application serial No. 294,375.

Country Maid

International Products Corporation, New York City. For canned meats and canned meat products; namely, corned beef and corned meat loaf. Trade mark: I. P. C. Claims use since 1927. Application serial No. 293,325.

I. P. C.

Griffith Laboratories, Chicago, Ill. For cereal used in manufacture of sausage meat products and candy. Trade mark: G. P. F. in intersecting circles. Claims use since July 1, 1919. Application serial No. 289,278.

NEW BOILER DESIGN.

During the past several years improvements in the design of boiler room and steam generating equipment has been rapid. This progress has been particularly noteworthy in the development of boilers for the higher pressures.

The result is that efficiencies are being bettered and steam and overhead costs are being reduced. In many meat plants steam costs are much higher than they should be; in fact, in not a few cases, the savings that would result from the installation of new equipment would soon pay the cost of the improvement.

A new design of water tube boiler, known as the cross drum, that engineers will find interesting and for which a number of structural and operating advantages are claimed, has come on the market recently. Among these advantages are:

1—The construction is such that it is possible to drive all rivets hydraulically, assuring a tighter rivet job.

2—Only one caulking is necessary.

3—The single row of rivets is out of the fire and hot gas zones.

4—The method of front header suspension permits all rivets in the hanger to be out of the water and steam spaces.

This boiler, manufactured by the Erie City Iron Works, Erie, Pa., is made in a variety of sizes and to use any standard method of firing. A bulletin describing it may be had on application.

INSTITUTE REGIONAL MEETING.

Discussion of the problems associated with the development of quick freezing methods in the meat industry will be transferred next week to New York. Eastern packers will attend a regional meeting of the Institute of American Meat Packers to be held at the Pennsylvania Hotel, Thursday, March 6.

Like the Chicago meeting, the meeting in New York will be devoted entirely to quick freezing. The program will be essentially the same as that presented at Chicago on February 20, except that Clarence Birdseye, inventor of the Birdseye process, who did not speak at Chicago will speak at the meeting in New York.

Below is the complete program which will be presented at the New York meeting on March 6.

Morning Session, 10:00 a.m.:

1. "Brief Statement Concerning Purpose of Meeting," Wm. Whitfield Woods, president, Institute of American Meat Packers.
2. "Demonstration of Quick Freezing," C. L. Jones, DryIce Corporation of America.
3. Discussion, questions and answers.
4. "Essentials in the Design of Retail Display and Storage Cases for Quick-Frozen Meats," F. B. Green, Ottenheimer Bros.
5. "Refrigeration Requirements for Merchandizing Quick-Frozen Cuts," W. N. Timmerman, General Electric Company.
6. Discussion, questions and answers.

Luncheon, 12:45 p.m. $2.00 per plate. Steaks made from quick-frozen cuts will be served at this luncheon.

Afternoon Session, 2:00 p.m.:

7. "Problems in the Production and Distribution of Quick-Frozen Products," Clarence Birdseye, Frosted Foods, Inc.
8. "Our Experiences with Quick Freezing Methods," Harden F. Taylor, Atlantic Coast Fisheries Company.
9. Discussion, questions and answers.

FINANCIAL NOTES.

Roberts & Oake report net earnings for the first quarter of the current year in excess of the earnings for the last five months of the last fiscal year, interest charges on the first mortgage bonds being earned 4.74 times.

United States Cold Storage Corporation reports a consolidated net income of $296,403 for the year ended December 31, 1929, after all charges and adjustments and after increased reserves. This does not include earnings from the Central Provisions Company. This net is equal to $3.89 a share on the outstanding common compared with $3.83 a share in 1928. The current assets of the company are reported as $2,372,072 and current liabilities $1,711,-554.

The Container Corporation of America has signified its intention of increasing its authorized class A stock from 600,000 to 2,000,000 shares. Financial circles have taken this to foreshadow possible merger developments.

Net profits of $6,841,068 are reported by Mack Trucks, Inc. for 1929. This is after depreciation and federal taxes and is equivalent to $9.05 a share on 755,625 no par shares of common stock. This compares with earnings of $7.83 a share on the same share basis in 1928. Net sales for the year totaled $57,227,200 compared with $55,850,860 in 1928. The company's surplus on December 31, 1929, amounted to $25,-309,440.

The shareholders of Armour and Company were increased to approximately 80,000 when the holders of voting trust certificates automatically acquired the right to claim actual stock on February 16. These certificates were issued for the personal holdings of J. Ogden Armour and were released by him to meet obligations following the war. Since that time they have been traded in on the principal exchanges. Further trading in these certificates will be permitted for only a short time.

Three important tax cases involving approximately $6,000,000 were lost by the American Can Company and its subsidiaries, the Missouri Can Co. and the Detroit Can Co., this week when the United States supreme court overruled their contention that this amount was wrongfully exacted by the government as income and excess profit taxes in 1917. The litigation involved the extent to which the Internal Revenue bureau may go with regard to the accounting basis of taxpayers in the correctness of returns for the levying of taxes.

PACKER AND FOOD STOCKS.

The price ranges of the listed stocks of packers, leather companies, chain stores and food manufacturers on Feb. 26, 1930, or nearest previous date, together with number of shares dealt in during the week, and closing prices on Feb. 19, or nearest previous date:

	Sales. Week ended Feb. 26.	High. Feb. 26.	Low. Feb. 26.	Close. Feb. 26.	Close. Feb. 19.
Amal. Leather	....	.....	.....	.....	2¾
Do. Pfd	200	25¼	25¼	25¼	25
Amer. H. & L.	400	4¼	4¼	4¼	5⅝
Do. Pfd	100	31	31	31	33½
Amer. Strs.	1,500	46⅝	46⅝	46⅝	47
Armour A	5,300	5¾	5⅝	5¾	5⅞
Do. B	10,500	3¼	3	3⅛	3
Do. Pfd.	1,100	60⅛	60	60	60½
Do. Del. Pfd.	700	76½	76½	76½	77
Barnett Leather	....	.....	.....	.....	2⅝
Beechnut Pack.	900	63	63	63	66¼
Bohack, H. C.	....	.....	.....	.....	80
Chick. C. Oil	200	27	27	27	27½
Childs Co.	1,800	61	60⅝	60½	62¼
Cudahy Pack.	600	45⅛	45⅛	45⅛	45¼
First Nat. Strs.	7,700	56¾	55⅞	56	58
Gen. Foods	25,900	51⅞	50⅝	51⅞	52¼
Gobel Co.	2,900	15¾	15½	15¾	16
Gt.A.&P.1stPfd.	50	117	117	117	116⅞
Do. new	250	240	240	240	240
Hormel, G. A.	....	.....	.....	.....	33¼
Hygrade Food	700	10⅜	10¼	10⅜	12
Kroger G. & B.	38,700	39⅝	38¾	39	42½
Libby McNeill	8,850	19⅝	19½	19½	19⅞
MacMarr Strs.	2,000	18	18	18	19¾
M. & H. Pfd.	500	35⅞	35	35⅞	36
Morrell & Co.	800	68	68	68	69¼
Nat. Fd. Pr. A.	100	17½	17½	17½	17½
Do. B	300	3½	3½	3½	3⅞
Nat. Leather	350	1½	1½	1½	1⅝
Nat. Tea	2,600	35¾	35⅛	35½	37½
Proc. & Gamb.	5,700	68½	67½	68	67⅛
Rath Pack	550	22½	22	22½	23
Safeway Strs.	41,600	102⅝	100	101⅞	105¼
Do. 6% Pfd.	370	98	98	98	98⅜
Do. 7% Pfd.	180	108⅛	108⅛	108⅛	108
Stahl-Meyer	100	25½	25½	25½	26
Strauss-R. Strs.	1,600	14	10⅝	14	10
Swift & Co.	100	130	130	130	130⅛
Do. Intl.	3,800	33	32⅝	32⅞	33
Trunz Pork	200	25⅝	25⅝	25⅝	25⅝
U. S. Cold Stor.	100	40	40	40	39
U. S. Leather	1,300	8¼	8	8	8⅛
Do. A	600	15	15	15	17¾
Do. Pr. Pfd.	200	80¼	80¼	80¼	80¼
Wesson Oil	1,500	25½	25	25	27
Do. Pfd.	900	53	53	53	54⅛
Wilson & Co.	500	4	3¾	3¾	4¾
Do. A	400	9¼	9⅛	9⅛	9½
Do. Pfd.	700	48¼	48¼	48¼	50

CHAIN STORE NOTES.

At the request of Nebraska retail meat dealers and grocers, the attorney general of the state will conduct an investigation of chain stores looking to action against these stores under a state law which prohibits the sale of products in one locality at prices lower than in other localities for the purpose of putting a competitor out of business. The representatives of the retailers presented allegations of unfair trade practices as well as a conspiracy to stifle competition.

A net income of $2,731,266 is reported by the National Tea Company for the year ended December 31, 1929, which is equal after federal taxes and preferred dividends to $3.89 a share on the 660,000 common shares outstanding. This compares with a net of $2,569,050 after taxes, in 1928, equal to $4.27 on the 600,000 shares outstanding. Sales during 1929 amounted to $90,210,077 compared with $85,881,696 in 1928. On December 31 the company was operating 1627 stores compared with 1600 stores on the same date a year previous.

NOTES OF "NEW COMPETITION."

General Foods, Ltd., the Canadian sales subsidiary of General Foods Corporation, has taken over distribution of the products of five of its Canadian companies. These are Canadian Postum Co., Ltd., Windsor, Ont.; Jell-O Co. of Canada, Ltd., Bridgeburg, Ont.; Walter Baker & Co. of Canada, Ltd., and Franklin Baker, Ltd., both of Montreal; and Douglas-Pectin, Ltd., manufacturers of certo.

Acquisition of three new units is reported by the Beatrice Creamery Co., bringing the total number of plants now operated by this company up to 114. The new units are the Arctic Ice Cream Co., Danville, Ill.; the Big Horn Creamery Co., Basin, Wyo.; and the Helena Creamery Co., Helena, Mont. These companies will be operated as subsidiaries and will retain their own names.

BEECH-NUT'S 1929 EARNINGS.

Net profits of $2,702,953 are reported by the Beech-Nut Packing Co. and its affiliated companies for 1929. This is after depreciation, federal taxes and other charges and is equivalent after preferred dividends to $6.06 a share on 446,250 shares of $20 par value common stock. This compares with $2,768,-768, or $6.51 a share on 425,000 common shares in 1928. The surplus was increased during the year from $5,551,-110 to $6,558,599.

SWIFT QUARTERLY DIVIDEND.

The regular quarterly dividend of 2 per cent upon the outstanding shares of Swift & Company capital stock will be paid on April 1, 1930, to stockholders of record March 10, 1930, as shown on the books of the company as follows: 50c per share to holders of new certificates of $25 par stock, and $2.00 per share to holders of old certificates of $100 par value.

A Page for the Packer Salesman

More Calls a Day

Will Add Customers to the List and Increase Tonnage

The sales manager for a large and successful concern said recently that the most important attribute of the good salesman is the willingness to wear out shoe leather.

By this he means that the number of calls a salesman makes each day is an important factor in getting signatures on the order blanks.

This applies to meats as well as to other merchandise. The salesman who can get in a few extra calls a day by saving a few minutes here and there will increase his list of customers and his tonnage.

One salesman appreciates this fact, and has been trying to save time for these extra calls. He finds, after keeping a record of lost time, that waiting to see customers heads the list.

There should be some way to solve this problem, he thinks, but he has been unable to find it. The following letter is a broadcast for help. Can some salesman aid him?

He says:

Editor THE NATIONAL PROVISIONER:

We are hearing much these days about the need for better and more efficient merchandising of meats. I presume that this includes selling.

The meat salesman, unfortunately, can be only as efficient, insofar as putting in time is concerned, as his customers and prospects will permit.

It is not always possible for retailers to give meat salesmen immediate attention, but it seems to me that they could be a little more reasonable and make at least some effort to see salesmen as promptly as possible.

Lost Order When He Left.

I have recently been keeping close track of my time and trying to figure out ways and means to get in more calls each day. This record shows that I lose about a day and one-half each week waiting to see customers and prospects. If this time could be saved it would aid me greatly to make a better showing.

The problem has me stumped. I thought I could save time, when unable to see a retailer promptly, if I would make another call and come back to the first one later. The first time I tried this I lost an order. The retailer saw me go out of the store, and thinking I was not coming back placed a nice order with a competitor who called on him in the meanwhile. I don't intend to let this happen again.

Are any other salesmen giving thought to, and trying to solve this lost time problem? Have any other salesmen been able to devise a plan that would enable them to cut down the time they spend waiting to talk to customers and prospects?

One of the major costs of merchandising meat is the expense of selling. This cost must be recovered in the price the retailer pays. If he would see salesmen promptly the cost of selling would be reduced, and the saving in time would come back to him in the form of lower prices. The salesman is hardly the one, it seems to me, to try to get this thought over. Preferably it should come from the house.

A discussion on the Salesman's Page of THE NATIONAL PROVISIONER on ways and means to save time when calling on customers would be interesting and valuable. Will not some salesman who has solved this problem air his views for the benefit of the less fortunate ones who have not been able to work it out for themselves?

Yours very truly,
PACKER SALESMAN.

The Sales Manager says:

Extracts from letters written by a wide-awake young packer sales manager to his men.

MEAT CONSUMPTION INCREASE.

A short time ago I talked with one of the shrewdest men in the meat industry. One of his pertinent remarks was that there is too much waste in the meat industry and that this waste must be eliminated.

He was referring to losses all along the line from producer to consumer. He had in mind the waste in over-fat livestock, the wastes and losses in the plant, the needless expenses in distribution and the losses in the retail store.

You salesmen cannot help much to reduce waste between producer and in the plant, but you can help to reduce losses from the plant to the retailer and from the retailer to the customer.

When you convert a retailer to cut and packaged fresh meats you help to reduce the cost of retail selling.

Cut and packaged fresh meats will affect economies in distribution and in the retail store and reduced costs will be helpful in increasing meat consumption. Talk cut and wrapped fresh meats.

READY RAPPED RALPH.

SERVICE BUILDS BUSINESS.

Selling is becoming more than ever a matter of rendering service. Production problems in the meat plant have been solved to a considerable extent.

Any packer who wants to make good products can do so—and more are choosing to do so. Today there is not the spread in quality between the products of the different plants there was a few years ago.

Quality will always be an important talking point in the meat selling game. But the plant that sells service with its merchandise finds it easier to dispose of its products in competition with the plant that makes no effort to aid the retailer to merchandise his stock.

One meat salesman who a year ago was put on a territory that had been allowed to go to seed, and who has built it up to point where it is profitable, says he turned the trick by helping his customers with their merchandising problems, rather than by selling.

Whenever he runs across a stunt for increasing meat sales, or a plan for winning customers, creating good-will, and building business, he pastes it in a scrap book. The book is being added to continually and is in great demand by the dealers on whom the salesman calls. In addition, he has gained the reputation of being a meat merchandising expert, and is consulted on merchandising problems by most of his dealers.

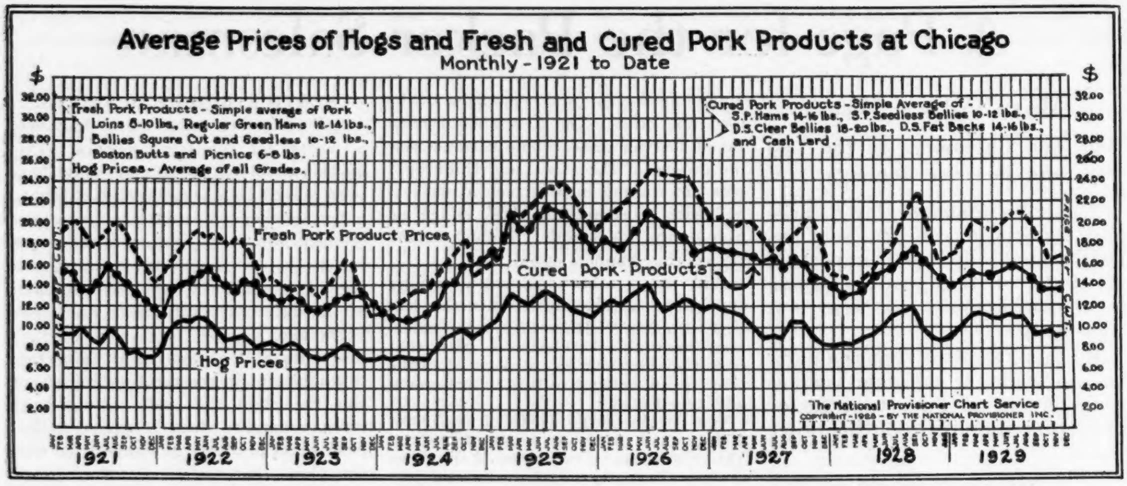
His methods have enabled him to sell meats and they have increased meat consumption in the territory.

A recent survey by his firm revealed that the territory buys more meat per 1,000 of population than any other section served. The figures were so impressive that the firm has decided to establish a department of merchandising. Its sole purpose will be to study retail meat merchandising and help its customers who desire aid in solving the problems of retail meat store management.

BUILDING CONFIDENCE.

Whether or not the salesman realizes it, psychology plays an important part in sales work. When the salesman has confidence in his firm, in his ability and in the future of the meat industry generally and helps his dealers to feel this confidence he automatically gives them confidence in their own affairs.

There is no cure-all for the troubles of the meat salesman, but if you are seeking one try this prescription: Wear out shoe leather.



This chart in THE NATIONAL PROVISIONER DAILY MARKET SERVICE series shows the trend of prices of fresh and cured pork products and live hogs at Chicago monthly from 1921 to 1929, inclusive.

With the exception of one period in 1923 and another in 1925, fresh pork prices are well above those of the cured product throughout the entire period. This is due in part to the fact that the products included in fresh pork are all the highest priced of those in the list while the cured products include dry salt meats and lard, the latter particularly having a depressing influence on the average price level of cured pork.

During 1925 and 1926 both hogs and pork moved to the high point of the period, but in 1928 and 1929 both have shown a closer relationship to prices in 1921 and 1922 than in other years of the period.

With the exception of the price depression created in 1923 and 1924 due to the record hog runs and the higher price levels of the following two years attributable to more limited supplies, the price level throughout the period is fairly uniform, each year having its peaks and low points with a good deal of regularity.

FEBRUARY MEAT REVIEW.

Substantial declines in the prices of lambs and the meat therefrom and a sharp increase in the price of hogs featured the meat trade during the month just closed, according to a review of the live stock and meat situation issued by the Institute of American Meat Packers.

Lamb prices now are approximately 6 cents a pound lower than they were a year ago and dressed lamb is wholesaling from 6 to 9 cents a pound lower. The decrease in the wholesale prices of the dressed product, as compared with a year ago, is from 20 to more than 35 per cent, depending on the grade and weight.

Hogs advanced in price during the month until a top price of 11½ cents a pound was reached during the third week. Prices declined rather sharply thereafter, but advanced again at the close of the month.

The foreign demand for American pork products was relatively dull.

Except for fairly brisk demand for hams during a brief period early in the month, the English trade was rather quiet. The demand from the Continent was also slow in the case of both meats and lard.

The domestic trade in pork products was better in the case of smoked products than in the case of fresh cuts. Fresh pork moved rather slowly, notwithstanding a relatively low level of prices, and a considerable amount of product was frozen.

There was a fair demand for smoked meats, with some slackening toward the end of the month. The demand for bacon was relatively better than the demand for hams. Prices of sweet pickled hams, picnics, and bellies strengthened somewhat.

There was a fair demand for boiled hams and for sausage. The trade in dry salt meats was fair. Stocks are relatively light. Lard trading was in good volume at unsatisfactory prices.

A shortage of top grades of cattle characterized the receipts during the month. In general, supplies of medium grades were plentiful.

The demand for dressed beef was relatively light throughout the month and results were far from being satisfactory. The demand for forequarters was about normal for the season, although in Eastern markets some packers noted an increased demand for hindquarters.

Buyers of hides tended to operate on a hand-to-mouth basis, and prices were lower than during the preceding month.

DANISH BACON EXPORTS.

Exports of Danish bacon for the week ended Feb. 22, 1930, amounted to 5,094 metric tons, compared with 5,172 metric tons for the same period of 1929.

PORK PRODUCTS EXPORTS.

Exports of pork products from principal ports of the United States during the week ended Feb. 22, 1930:

HAMS AND SHOULDERS, INCLUDING WILTSHIRES.

	—Week ended—			Jan. 1, '30 to
	Feb. 22, 1930. M lbs.	Feb. 23, 1929. M lbs.	Feb. 15, 1930. M lbs.	Feb. 22, 1930. M lbs.
Total	1,003	500	1,095	12,822
To Belgium	13	10	....	201
United Kingdom	830	345	832	10,037
Other Europe	....	....	33	106
Cuba	23	24	20	432
Other countries	137	121	210	2,046

BACON, INCLUDING CUMBERLANDS.

Total	3,230	2,586	3,546	22,698
To Germany	237	60	....	773
United Kingdom	2,474	1,773	2,849	13.979
Other Europe	469	596	471	5,571
Cuba	10	10	47	1,356
Other countries	40	147	179	1,019

LARD.

Total	15,332	15,202	14,734	117,949
To Germany	5,433	3,428	3,674	28,635
Netherlands	2,283	293	....	6,492
United Kingdom	4,471	4,923	6,373	41.596
Other Europe	463	3,237	1,271	12,198
Cuba	1,480	991	2,314	11,958
Other countries	1,202	2,330	1,102	17.070

PICKLED PORK.

Total	154	201	301	3,643
To United Kingdom	37	6	38	387
Other Europe	14	2	31	429
Canada	27	141	139	758
Other countries	76	52	93	2,069

TOTAL EXPORTS BY PORTS.

Week ended Feb. 22, 1930.

	Hams and shoulders, M lbs.	Bacon, M lbs.	Lard, M lbs.	Pickled pork, M lbs.
Total	1,003	3,230	15,332	154
Boston	....	9	936	45
Detroit	697	407	744	26
Port Huron	c	c	c	c
Key West	20	1	737	6
New Orleans	18	12	1.943	35
New York	63	2,774	10,039	40
Portland, Me.	205	27	933	2

DESTINATION OF EXPORTS.

Exported to:	Hams and shoulders, M lbs.	Bacon, M lbs
United Kingdom (Total)	830	2,474
Liverpool	299	2,072
London	99	131
Manchester	6	....
Glasgow	175	....
Other United Kingdom	251	271

Exported to:	Lard, M lbs.
Germany (Total)	5,433
Hamburg	5,301
Other Germany	132

Provision and Lard Markets

WEEKLY REVIEW

Trade Active—Market Weaker—Liquidation Factor—Grain Weakness Unsettling—Cash Trade Limited—Shorts Good Buyers—Hog Run Fair.

The feature in hog products the past week was the activity and erratic price movements in lard. A long interest had been built up of late, and was distinctly unsettled by the persistent slump in the grain markets. Commission house selling and liquidation, together with professional pressure, ran the market into stop-loss orders, prices slumping about ¾c lb. from the recent high point only to recover nearly ¼c lb. from the inside figures of the reaction.

The break in lard materially strengthened the technical position, but this situation was not disclosed until the grain market recovered somewhat, bringing about renewed commission house buying and short covering. This uncovered a sold-out position in provisions. Sentiment, however, was divided and offerings increased somewhat on the swells.

Cash lard demand was somewhat quieter than of late. A fair hog run and an easier hog market accounted in part for the developments. However, it was the new season's lows in cotton and corn and the dumping of long holdings, rather than any particular depressing factor within the market itself, that accounted for the action.

Hog Prices Drop.

As a result, there was a tendency in speculative quarters to take hold of lard on the breaks. The impression was that with comparatively moderate lard stocks and the prospects for moderate hog marketings in immediate future, lard at these levels would prove more stubborn to selling pressure. The falling off in cash lard demand was not a surprising feature, the buyer being scared out temporarily by the general downward tendency in commodities.

The average hog prices at Chicago at the beginning of the week was 10.75c, compared with 10.95c a week ago, 10.70c a year ago and 8.25c two years ago. The average weight of hogs received at Chicago last week was 232 lbs., against 231 lbs. the previous week, 228 lbs. a year ago and 232 lbs. two years ago. The heavier weight had some influence on the market, and appeared to be a confirmation, to some extent, of the recent reports of heavier interior feeding operations. The continued weakness in corn made for a continuance of a very satisfactory spread between corn and live hogs, and as a result, there was an increased impression that hogs would be held and fed somewhat longer than usual.

Export interest, as a whole, appeared moderate during the week, but the trade is counting on a fairly good foreign demand during the season. Domestic consumption appears to hold up rather well. The official exports of lard for the week ended February 15, were 14,734,000 lbs., against 12,049,000 lbs. last year, making exports January 1 to February 15, some 95,684,000 lbs., against 117,029,000 lbs. the same time last year.

During the week 3,674,000 lbs. went to Germany, 6,373,000 lbs. to the United Kingdom, 2,314,000 lbs. to Cuba and 2,373,000 lbs. to other countries. The exports of hams and shoulders for the week of February 15 totaled 1,095,000 lbs., against 435,000 lbs. last year; bacon, including Cumberlands, 3,546,000 lbs., against 2,947,000 lbs. last year; pickled pork, 301,000 lbs., against 421,000 lbs. last year.

Fewer Hogs Marketed.

Receipts of hogs at the seven leading markets last week were 531,000, against 626,000 the previous week and 545,000 the same time a year ago.

PORK—The market was steady, but trade was quiet at New York. Mess was quoted at $29.50; family, $34.50; fat backs, $22.00@28.00.

LARD—Cash trade was fair, but the market irregular with futures. At New York, prime western was quoted at $11.05@11.15; middle western, $10.95@11.05; city, 10⅜@10½c; refined continent, 11c; South America, 11¼c; Brazil kegs, 12¼c; compound, car lots, 10¾c; less than car lots, 11c.

At Chicago, regular lard in round lots was quoted at 10c under March; loose lard, 55c under March; leaf lard, 112½c under **March.**

BEEF—Prices were very firmly held in the East, with a fair trade reported passing. At New York, mess was quoted at $25.00; packet, $25.00@26.00; family, $28.00@29.00; extra India mess, $42.00@45.00; No. 1 canned corned beef, $3.10; No. 2, $5.50; 6 lbs. South America, $16.75; pickled tongues $70.00@75.00 per barrel.

See page 44 for later markets.

NEW YORK MEAT SUPPLIES.

Receipts of Western dressed meats and local slaughters under federal inspection at New York, for week ended Feb. 22, 1930, with comparisons:

West. drsd. meats:	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Steers, carcasses	7,668	5,816½	6,247
Cows, carcasses.	1,030	1,156	981
Bulls, carcasses.	192	203	97
Veals, carcasses.	9,713	12,123	8,783
Lambs, carcasses	31,532	31,791	25,126
Mut., carcasses.	4,167	3,783	3,185
Beef cuts, lbs..	275,841	344,406	401,965
Pork cuts, lbs..	1,253,293	2,618,076	1,530,853
Local slaughters:			
Cattle	8,377	8,785	8,621
Calves	12,990	11,369	14,406
Hogs	52,758	54,958	55,108
Sheep	56,807	60,032	45,808

PHILADELPHIA MEAT SUPPLIES.

Receipts of Western dressed meats and local slaughters under city and federal inspection at Philadelphia for the week ended Feb. 22, 1930:

Western dressed meats:	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Steers, carcasses	2,275	2,022	1,957
Cows, carcasses	827	936	870
Bulls, carcasses	287	289	304
Veals, carcasses	2,015	2,002	1,513
Lambs, carcasses	14,842	12,774	9,530
Mutton, carcasses	1,554	2,266	1,276
Pork, lbs.	577,983	480,166	637,862
Local slaughters:			
Cattle	1,435	1,434	1,205
Calves	1,560	1,861	1,599
Hogs	3,803	16,064	16,295
Sheep	15,593	4,050	4,381

LARD AND GREASE EXPORTS.

Exports of lard from New York City, Feb. 19 to Feb. 26, 1930, totaled 34,411,703 lbs.; tallow, none; greases, 623,200 lbs.; stearine, 28,000 lbs.

HEADS PROVISION COMMITTEE.

Members of the provision committee of the Philadelphia Commercial Exchange were recently appointed by the president and approved by the board of directors, as follows: George A. Casey, Frederick W. Specht, F. Marion Hall, James S. McVey, Robert M. Owthwaite, F. A. Vogt, E. Frank Lavan and B. C. Dickinson.

George Casey, vice-president of the Wilmington Provision Co., was chosen chairman of the committee.

MEAT IMPORTS AT NEW YORK.

Imports of meats and meat products received at New York for the week ended Feb. 21, 1930, according to the U. S. Bureau of Agricultural Economics:

Point of origin.	Commodity.	Amount.
Argentine	Canned corned beef	37,900 lbs.
Brazil	Corned beef	4,500 lbs.
Canada	Beef quarters	3,502 lbs.
Canada	Pork loins	1,521 lbs.
Canada	Sweet pickle hams	4,500 lbs.
Canada	Sausage	460 lbs.
Germany	Sausage	2,150 lbs.
Germany	Ham	2,571 lbs.
Ireland	Bacon	2,347 lbs.
Ireland	Ham	1,620 lbs.
Italy	Sausage	4,666 lbs.
Italy	Salami	2,400 lbs.
Lithuania	Ham	1,400 lbs.
Lithuania	Bacon	1,000 lbs.
Norway	Meat cakes	1,350 lbs.
Uruguay	Canned corned beef	4,860 lbs.

EUROPEAN PROVISION CABLES.

The market at Hamburg shows little alteration, for the week ended February 22, according to cable advices to the U. S. Department of Commerce. Receipts of lard for the week were 2,096 metric tons. Arrivals of hogs at 20 of Germany's most important markets were $1,000, at a top Berlin price of 17.30 cents a pound, compared with $7,000, at 16.87 cents a pound, for the same week of last year.

The Rotterdam market for animal fats was somewhat weaker because of lower prices for tallow. Premier jus dull. Vegetable oils slow. Prices lower for extra neutral lard and refined lard.

The market at Liverpool improved.

The total of pigs bought in Ireland for bacon curing was 14,000 for the week, as compared with 20,000 for the corresponding week of last year.

The estimated slaughter of Danish hogs for the week ending February 21, 1930, was 92,000, as compared with 54,000, for the corresponding week of last year.

BOSTON MEAT SUPPLIES.

Receipts of Western dressed meats at Boston for the week ended Feb. 22, 1930, with comparisons:

Western dressed meats:	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Steers, carcasses	2,895	2,107	1,993
Cows, carcasses	1,858	2,060	2,040
Bulls, carcasses	75	74	56
Veals, carcasses	1,458	1,738	1,122
Lambs, carcasses	21,802	59,255	12,517
Mutton, carcasses	697	1,637	1,160
Pork, lbs.	526,063	558,295	504,431

CASINGS FOR NETHERLANDS.

Hog casings offered for importation into the Netherlands must be refrigerated for 20 days at a temperature of 15 degs. C. below zero (5 degs. F.), according to a recent announcement made by the U. S. Bureau of Animal Industry.

This is supplementary to Circular Letter 1633 of the Bureau, dated October 14, 1929, providing that pork for the Netherlands must be refrigerated for three weeks at 15 degs. C. below freezing or heated throughout at a temperature of 80 degs. C.

The full text of the most recent announcement, contained in B. A. I. Circular Letter No. 1640, is:

Referring to Circular Letter No. 1633 dated October 14, 1929, relative to pork for The Netherlands, information has been received through diplomatic channels to the effect that hog casings offered for importation into that country are required to be refrigerated for 20 days at a temperature of 15 degrees C. below zero (5 degrees F.). Accordingly inspectors in charge are directed to see that only hog casings which are derived from animals slaughtered in official establishments, handled in a sanitary manner and refrigerated at a temperature of not higher than 5 degrees F. for not less than 3 weeks are exported to The Netherlands.

M. I. Form 122-E shall be issued for each consignment of hog casings for The Netherlands, and on the reverse side of both the original and duplicate copy of the certificate shall be written the following, signed by the inspector in charge:

"The hog casings described on the reverse side of this certificate were refrigerated continuously for not less than three weeks at a temperature not higher than 15° C. below freezing."

M. I. Form 169 shall also be issued in addition to M. I. Form 122-E for hog casings for The Netherlands.

J. R. MOHLER,
Chief of Bureau.

Tallow and Grease Markets

WEEKLY REVIEW

TALLOW—A limited volume of trade and decided weakness featured the tallow market in the East the past week. Sales of extra f.o.b. were reported at 6⅞c, followed by business at 6¾c f.o.b., the price later breaking to 6⅝c f.o.b. Only a comparatively moderate turnover was reported.

The break to new season's lows was again attributed to lack of storage on the part of large consumers. It was said that soapers' storage facilities are filled with various supplies, so that they are unable to take on quantities of tallow. This made for a weak nearby situation.

The consumer, however, according to packing house interests, was willing to pay 7c for shipment tallow from April to July inclusive. The latter failed to have much influence, however, on the immediate market, even though soapers were credited with reporting a satisfactory business passing in soaps. Sentiment was mixed at this level, many having the impression that tallow under 7c was too low, although it was admitted that weakness in other commodities had had a depressing influence also.

At New York, special was quoted at 6½c; extra, 6⅝c; edible, 7⅜@7½c nominal.

At Chicago, the market failed to show any improvement in tallow, with trading extremely quiet. At Chicago, edible was quoted at 7¼@7½c; fancy, 7@7⅛c; prime packer, 7c; No. 1, 6½@6¾c; No. 2, 5½c.

There was no London tallow auction this week. At Liverpool, Australian tallow was unchanged. Fine was quoted at 39s 6d and good mixed, 36s.

STEARINE—The market ruled very quiet in the East the past week, and the tone was barely steady. Oleo at New York was quoted at 9⅛c nominal. At Chicago, demand was slow, with oleo quoted at 8¾c.

OLEO OIL—While trade was quieter the past week, the situation remained independently steady. Extra at New York was quoted at 12¼@12⅝c; medium, 10⅞@11⅛c; lower grades, 10⅜c. At Chicago, extra, 11¾c.

See page 44 for later markets.

LARD OIL—A moderate demand was in evidence the past week in this quarter, and prices were barely steady. At New York, edible was quoted at 13c; extra winter, 12½c; extra, 12c; extra No. 1, 11¼c; No. 1, 11c; No. 2, 10¾c.

NEATSFOOT OIL—A hand-to-mouth demand was in evidence, and the market was barely steady with raw materials. At New York, pure was quoted at 13½c; extra, 11¼c; No. 1, 11c; cold test, 18c.

GREASES—A decidedly heavy position continued in the grease market the past week, with prices influenced somewhat by a limited demand, brought about to some extent, it was said, by lack of available storage space on the part of consumers. This served to make for a lack of interest except on price concessions, and it was apparent that the weakness in tallow was having a depressing influence on greases in general.

At New York, business was reported to have passed in greases at from 5½c to 5⅞c, according to quality. At New York, yellow and house were quoted from 5½c to 5⅞c; A white, 6¼c; B white, 5⅞@6c; choice white, 7⅜@7½c nominal.

At Chicago, the market for greases failed to show any improvement and operations were on a small scale. Business was reported in choice white grease at 6½c, f.o.b. Chicago, prompt shipment. At Chicago, brown was quoted at 5½c; yellow, 5¾c; A white 6c; B white, 6¼c; choice white, 6½c.

By-Products Markets

Chicago, Feb. 27, 1930.

Blood.

Buyers are showing little interest in blood. Last sales were at prices steady with those of last week.

	Unit Ammonia.
Ground and unground	$4.00@4.25

Digester Feed Tankage Materials.

There is practically no activity in the market for feed tankage materials. Prices are nominal.

	Unit Ammonia.
Unground, 11½ to 12% ammonia.	$ 4.00@ 4.25 & 10
Unground, 6 to 8% ammonia	3.00@ 3.25 & 10
Liquid stick	3.50@ 3.75
Steam bone meal, special feeding, per ton	@42.50

Fertilizer Materials.

The market in fertilizer materials is lower, although demand is good and buyers are coming into the market in greater numbers. High grade ground selling at $3.50 & 10c, Chgo.

	Unit Ammonia.
High grd. ground, 10@11% am.	$ @ 3.50 & 10
Low grd., and ungr., 6-9% am.	@ 3.35 & 10
Hoof meal	@ 3.00
Bone tankage, low grd., per ton	24.00@25.00.

Bone Meals (Fertilizer Grades).

The bone meal market is inactive. Few if any sales are being made and prices are nominal.

Raw bone meal	$50.00@55.00
Steam, ground, 3 & 50	31.00@32.00
Steam, unground, 3 & 50	29.00@31.00

Cracklings.

Buyers are in the market occasionally and small sales are made now and then. Prices are nominal.

	Per Ton.
Hard pressed and exp. unground, per unit protein	$ .85@ .95
Soft prsd. pork, ac. grease & quality	70.00@75.00
Soft prsd. beef, ac. grease & quality	50.00@55.00

Gelatine and Glue Stocks.

Trading continues slow in this market. Bones are easy, buyers having withdrawn from the market. Prices show no change from last week.

	Per Ton.
Kip and calf stock	$38.00@41.00
Hide trimmings	30.00@33.00
Horn piths	38.00@40.00
Cattle jaws, skulls and knuckles	36.00@38.00
Sinews, pizzles	33.00@35.00
Pig skin scraps and trim., per lb.	5½@6c

Horns, Bones and Hoofs.

	Per Ton.
Horns, according to grade	$85.00@160.00
Mfg. shin bones	70.00@125.00
Cattle hoofs	40.00@ 45.00
Junk bones	27.00@ 28.00

(Note—Foregoing prices are for mixed carloads of unassorted materials indicated above.)

Animal Hair.

Buyers have covered their requirement as is usual at this time of the year. Prices are nominal.

Coil and field dried	2½@ 3½c
Processed, grey, summer, per lb.	4 @ 4½c
Processed, grey, winter, per lb.	5¼@ 5½c
Cattle switches, each*	3¾@ 4½c

* According to count.

EASTERN FERTILIZER MARKETS.

(Special Letter to The National Provisioner.)

New York, Feb. 26, 1930.—Very few price changes have taken place in fertilizer or feeding materials this past week. Trading is still being done on a very limited scale, and buying is from hand to mouth in small quantities.

The weather has been so warm that deliveries of mixed fertilizers have fallen off somewhat, especially on country roads where trucking is difficult.

The demand for sulphate of ammonia and nitrate of soda has shown some improvement, and resale lots of sulphate of ammonia are still being offered at quite a little under the season's contract prices.

CHEMICALS AND SOAP SUPPLIES.

(Special Report to The National Provisioner.)

New York, Feb. 18, 1930.—Extra tallow, f.o.b. seller's plant, 7@7¼c lb.; Manila cocoanut oil, tanks, New York, 7c lb.; Manila cocoanut oil, tanks, 6⅞c lb.; Cochin cocoanut oil, barrels, New York, 9@9¼c lb.

P. S. Y. cottonseed oil, barrels, New York, 9¾@10c lb.; crude corn oil, barrels, New York, 9¾@10c lb.; olive oil foots, barrels, New York, 8@8¼c lb.; 5 per cent yellow olive oil, barrels, New York, 90c gallon.

Crude soya bean oil, barrels, New York, 11½@12c lb.; palm kernel oil, barrels, New York, 9@9¼c lb.; red oil, barrels, New York, 10½@11c lb.; Nigre palm oil, casks, New York, 7½@7¾c lb.; Lagos palm oil, casks, New York, 8¼@8½c lb.; glycerine, soaplye, 6¾@7c lb.; glycerine, C. P., 13¾@14c lb.; glycerine, dynamite, 10¾c lb.

NEW OIL TRADING GRADES.

Bleachable prime summer cottonseed oil was made the standard for trading in bulk in tank cars, and bleachable prime summer cottonseed oil grading 20 yellow and 2.5 red was made the trading grade on the New York Produce Exchange.

These grades were established by the committee appointed by President Hoover when he was Secretary of Commerce to decide on standard trading grades acceptable to the New York Produce Exchange and to the South.

Charles E. Herrick, vice-president of the Brennan Packing Co., Chicago, was a member of this committee.

OLEOMARGARINE IN IOWA.

A survey to determine margarine consumption in Iowa was made by the Iowa department of agriculture. This survey indicated that 18,000,000 lbs. of oleomargarine are used in the state annually, an average per capita consumption of 7.6 lbs.

This survey was conducted in 10 counties and is regarded as representative of the state. Some 462 stores were surveyed, showing that for every 56 lbs. of butter used, 44 lbs. of oleomargarine were used. "This was not strictly a farm survey, because it took in such towns as Des Moines, and one or two others of considerable size; but it did reveal that in strictly rural sections there was a greater proportionate use of oleomargarine than in the cities," says the report.

GERMAN MARGARINE ASSN.

"Margoel", the association of the independent German margarine manufacturers, announced recently that its aim is to combat the ever encroaching influence of the Margarine Unie and safeguard supplies of raw materials for its members. The association is endeavoring to secure the removal of the German import duty on oils required in the manfacture of margarine.

This step is deemed necessary as a large percentage of the factories producing edible oils are controlled by the margarine trust, and the association believes that removal of duty on importations would enable its members to be independent of the trust.

MARGARINE IN U. S. HOSPITALS.

A bill recently introduced in the house of representatives proposes to prohibit the use of oleomargarine in any hospital or charitable institution supported by appropriations from the Federal Government. The bill provides a fine for violations, not exceeding $100 nor less than $25 for the first offense, not exceeding $500 nor less than $100 for subsequent offenses.

NEW ORLEANS OIL MARKETS.

(Special Report to The National Provisioner.)

New Orleans, La., Feb. 24, 1930.—Cottonseed oil futures are fairly steady due to the demand for crude and the bullish lard statistics. But the parity indicates lack of confidence in both cottonseed oil and lard by the speculative element. This is due to a continuance in the decline of commodity values which is disturbing confidence in all lines of business.

The business situation as a whole seems to be gaining and more confidence would be inspired if the Farm Board efforts to stabilize prices would regain the confidence of the speculative element.

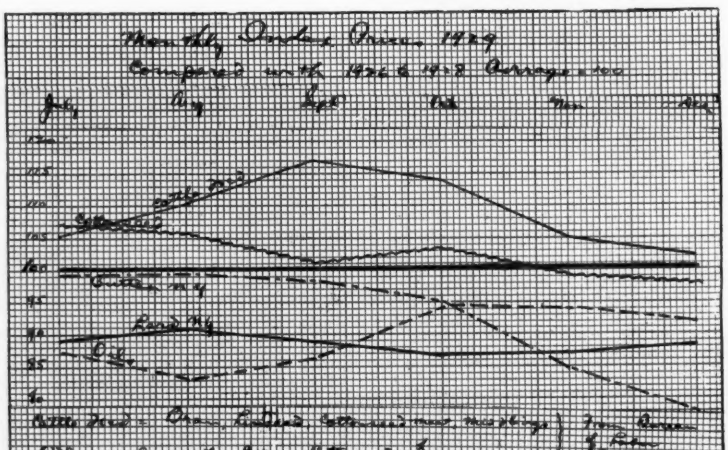
The reduction in acreage in cotton seems more assured due to the price decline and promised aid of the small-town bankers. While a small cotton production is not assured, the yield will be limited. With cottonseed oil carry-over not too bulky, bullish lard statistics and possibility of decreased cottonseed oil yield next year, the buying side seems more attractive for a long pull.

REPORT ON HAUGEN BILL.

The senate committee on agriculture and forestry has reported favorably on the bill now before Congress to add so-called yellow cooking fat compounds to the definition of oleomargarine and bring them within the provisions of the existing oleomargarine law. This bill, known as the Haugen bill, recently passed the House of Representatives.

NEW WESSON OIL DIRECTOR.

J. D. O'Keefe has recently been elected a director of Wesson Oil & Snowdrift Company, instead of president of the company as recently reported. The former report was taken from New York dispatches, which were incorrect.



COTTONSEED PRICES AVERAGE WELL IN 1929.

This chart, prepared by the Shortening and Oil Division of the National Cottonseed Products Association, shows the monthly index of prices paid for cottonseed compared with prices of cattle feed and of oils and fats. This indicates that cottonseed prices are higher than might have been expected, in view of the trend of prices of products that enter into direct competition with the products of cottonseed.

Vegetable Oil Markets

WEEKLY REVIEW

Trade Fair — Market Easier — Outside Weakness Factor—March Liquidation Feature—Cash Trade Quiet—Crude Fairly Steady—Lard Off Sharply—Sentiment Mixed.

Operations in cotton oil futures on the New York Produce Exchange the past week were on a fairly good scale. The market was on the down grade as a result of pressure, brought about by outside weakness, particularly the continued heaviness in grains and cotton, and liquidation in March prior to tender day. Commission houses and the locals were on top of values, and prices showed a loss of 35 to 45 points from the recent highs.

The lard market was off about ¾c lb. from the recent high point. It was apparent that buying power in edible fats had been materially unsettling by the situation which developed in allied markets, the latter making new season's lows and serving to bring about liquidation in oil and lard. This ran into stop-loss orders.

Conditions within the oil market itself presented no notable change the past week or two, other than that support was less aggressive and the buying mainly limited to resting orders and profit takers.

Crop Outlook Dominant Feature.

Deliveries of 5,400 bbls. on March contracts, the first tender day, credited largely to refining interests, were taken by packers, local handlers and commission houses. A fair percentage appeared to have gone back to those who put out the oil. The deliveries appeared to have evened up the March position considerably. This situation, and the elimination of longs, served to strengthen the technical position. As a result a steadier situation was noted when lard and the other markets rallied from the lows of the week.

The situation in oil is such, that until some new feature materializes, the market is apt to be swayed by the outside developments, although statistically oil is in a fairly satisfactory position. The trade is anxiously awaiting a better idea as to the probable new crop acreage, which it is felt, will have considerable bearing in the near future.

Distribution of oil appears to be on a rather satisfactory scale. As a result it is difficult for some to get away from the idea that supply and demand conditions will not rule the next few months. The outlook at this time is that supplies the balance of the season will be comparatively lighter than last season, nevertheless, it is quite evident that the carryover will be of goodly size at the end of this season, so that the new crop outlook will most likely be the dominating feature.

It is admitted that oil is in a two-sided position at this level, more so than it has been of late, and the market facing a situation where hedge pressure the balance of the season is apt to prove light, so much so, that the market should prove sensitive to lifting of hedges against cash business.

The weekly weather report noted nearly ideal conditions for seasonal work in the cotton belt the past week. Much plowing was done. Good progress in the preparation of the soil was rather general over the belt, except in the low lands of the North central portions where it continued too wet. Some new cotton was planted in Arizona during the week in Arizona.

Decreased Acreage Expected.

In private quarters there is expectation of a cotton acreage decrease of 3 to 5 per cent, with some hoping and talking a larger decrease. From the South comes intimations of strenuous financial pressure being brought upon the producer to curtail the area. There has been little in the way of seed news from the South of late, and while there are a few who look for liberal seed receipts the balance of the season, a majority of the close observers are anticipating much lighter seed arrivals at the mills the rest of this season than during the same time last season.

Cash trade during the week was reported moderate and more or less of a hand-to-mouth character. Such is usually the case in a declining market. The trade, however, are only booking up for a month in advance and having been out of the market in a large way, the past two weeks or so, are due to reenter shortly.

The passage of a resolution providing for a Congressional investigation of the "Cottonseed Oil Trust" operating principally in the South and Southwest was urged in the House by Representative Patman of Texas. He declared that the Federal Trade Commission should not be depended upon to make the inquiry, according to Washington press dispatches.

COTTONSEED OIL—Market transactions at New York:

Friday, February 21, 1930.

		—Range—		—Closing—		
	Sales.	High.	Low.	Bid.		Asked.
Spot	....	....	....	840	a	....
Feb.	....	....	....	840	a	....
Mar.	3400	864	853	854	a	853
Apr.	200	880	880	875	a	885
May	2800	909	903	902	a	903
June	....	....	....	900	a	915
July	5900	931	927	927	a	....
Aug.	....	....	....	933	a	940
Sept.	1500	946	941	941	a	943

Total sales, including switches, 13,800

SOUTHERN MARKETS

New Orleans.

(Special Wire to The National Provisioner.)

New Orleans, La., Feb. 27, 1930.—Extreme weakness in other commodity markets has had a depressing effect on cotton oil. The situation has been relieved somewhat by partial recovery in wheat. Prime bleachable is steady at 8c New Orleans. Inquires are light. Crude is a shade easier at 7⅛@7⅜c; Texas, 7¼@7⅜c. Valley offerings are negligible. Total tenders have been fifty-six March New Orleans contracts. Thus far these have been cared for promptly. Good spot demand is needed to strengthen tone and cause new committments.

Memphis.

(Special Wire to The National Provisioner.)

Memphis, Tenn., Feb. 27, 1930.—Crude cottonseed oil very dull 7¼@7⅜c; 41 per cent protein meal, $32.25@32.50; loose cottonseed hulls, $7.00.

Dallas.

(Special Wire to The National Provisioner.)

Dallas, Tex., Feb. 27, 1930.—Prime cotton seed, nominal; prime crude oil, 7⅛@7¼c; 43 per cent cake and meal, $39.00; hulls, $12.00; mill run linters, 2¾@3½c.

bbls. Prime crude S. E. 7⅜c bid.

Saturday, February 22, 1930.

HOLIDAY—No market.

Monday, February 24, 1930.

Spot	....	....	....	840 a	....
Feb.	....	....	....	840 a	....
Mar.	7000	849	845	846 a	845
Apr.	....	....	....	850 a	880
May	2200	894	889	889 a	....
June	....	....	....	890 a	900
July	2900	922	913	914 a	913
Aug.	....	....	....	920 a	928
Sept.	2700	935	931	931 a	....

Total sales, including switches, 16,800 bbls. P. Crude S. E. 7¼@7⅜c.

Tuesday, February 25, 1930.

Spot	....	....	....	830 a	....
Feb.	....	....	....	830 a	....
Mar.	1800	845	841	845 a	844
Apr.	....	....	....	850 a	885
May	800	890	880	888 a	891
June	....	....	....	892 a	905
July	3200	914	906	914 a	913
Aug.	....	....	....	920 a	930
Sept.	2800	930	922	930 a	....

Total sales, including switches 8,600 bbls. P. Crude S. E. 7¼c bid.

Wednesday, February 26, 1930.

Spot	....	....	....	830 a	....
Mar.	3500	849	844	840 a	855
Apr.	....	....	....	860 a	890
May	1600	893	892	893 a	....
June	....	....	....	896 a	905
July	1400	920	918	917 a	919
Aug.	....	....	....	920 a	932
Sept.	3800	936	935	934 a	935
Oct.	....	....	....	920 a	940

Total sales, including switches 10,300 bbls. P. Crude S. E. 7¼c bid.

Thursday, February 27, 1930.

Spot	....	....	....	830 a	....
Mar.	....	....	....	845 a	870
Apr.	....	....	....	860 a	890
May	....	894	889	889 a	....
June	....	....	....	895 a	905
July	....	922	920	919 a	920
Aug.	....	....	....	925 a	935
Sept.	....	938	935	935 a	....
Oct.	....	940	940	935 a	942

See page 44 for later markets.

COCOANUT OIL—A rather quiet demand featured the market throughout the week, and the tone was barely steady, influenced somewhat by weakness in competing soapers' supplies. At New York, tanks were quoted at 6¾@6⅞c. Pacific Coast tanks were quoted at 6⅜@6½c.

CORN OIL—The market was slightly easier, with sales reported at 7¾c f. o. b. mills. The tone was steady at that figure, with prices quoted at 7¾@7⅞c.

SOYA BEAN OIL—Demand throughout the week continued rather flat, and the situation at New York was purely nominal. At the Pacific Coast, tanks were quoted nominally at 9c.

PALM OIL—Trade was rather moderate. The market was easier due to the weakness in tallow, and to reports that soapers' storage facilities are well filled. The lack of storage room made for a slow demand. At New York, spot Nigre was quoted nominally at 7c; shipment, 6.55c; spot Lagos, nominally 7½c; shipment, 6.95c.

PALM KERNEL OIL—A fair demand was reported in this quarter, and the tone, on the whole, was rather steady. New York tanks were quoted at 7.15c, while bulk oil for shipment was quoted at 6.90c.

OLIVE OIL FOOTS—Demand was rather spasmodic, and while good at times, was very quiet on the whole. The market was about steady. New York prices quoted at 6¾ to 7½c, according to position.

RUBBERSEED OIL—The situation in this market, it was said, was purely nominal, with little or nothing doing.

SESAME OIL—Market nominal.

PEANUT OIL—Market nominal.

COTTONSEED OIL — Demand was moderate and prices barely steady with the futures. Store oil was quoted nominally at ¼c over March. Southeast and Valley crude, 7¼c bid; Texas, 7c bid.

MEMPHIS PRODUCTS MARKETS.

(Special Report to The National Provisioner.)

Memphis, Tenn., Feb. 26, 1930.—Cottonseed continues to rule firm and March traded up to $37.50 in mid-session, with this price bid for additional at the close, and offerings held fractionally higher. News overnight directly affecting seed values is lacking, and the products of seed only negatively steady. Mill buying of the futures continues, and values in Mississippi have now been fairly well established at a premium over the Memphis futures and over cash handlers' bids which are directly related to the futures, premiums under official Merchants Exchange settlements considered.

Movement to cash handlers has slowed up again, and stocks accumulated and tendered into the futures have uniformly been withdrawn from store and diverted into mill hands. This prevents any pressure whatsoever in the futures, except a nominal selling interest, originating with gins and growers contemplating actual deliveries.

Cottonseed meal dull, and volume of trading almost entirely between locals who are apparently on both sides of the market, and awaiting developments. Distribution to the consuming trade is still at a low ebb, and dealers' bids have therefore gone out on a hedging basis which the mills have not been willing to meet as yet.

Relatively the Memphis futures are at a premium over cash meal for the first time in a good while, and any pressure at all on the cash market will undoubtedly be immediately reflected into the futures. On the other hand, a little day to day buying at present levels is the sustaining influence in the market, representing mostly, it is thought, short covering. January exports were about 30 per cent under January, 1929.

SHORTENING AND OIL PRICES.

Prices of shortening and salad and cooking oils on Thursday, Feb. 27, 1930, based on sales made by member companies of the Shortening and Oil Division of the National Cottonseed Products Association, were as follows:

Shortening.

	Per lb.
North and Northeast:	
Carlots, 26,000 lbs.	@11
3,500 lbs. and up	@11¼
Less than 3,500 lbs.	@11¾
Southeast:	
3,500 lbs.	@10¾
Less than 35,000 lbs.	@11¼
Southwest:	
Carlots, 26,000 lbs.	@10¾
10,000 lbs. and up	@10⅞
Less than 10,000 lbs.	@11⅜
Pacific Coast:	@11½

Salad Oil.

North and Northeast:	
Carlots, 26,000 lbs.	@10¾
5 bbls. and up	@11¼
1 to 4 bbls	@11¾
South:	
Carlots, 26,000 lbs.	@10¼
Less than carlots	@10¾
Pacific Coast:	@10⅞

Cooking Oil—White.

⅛c per lb. less than salad oil.

Cooking Oil—Yellow.

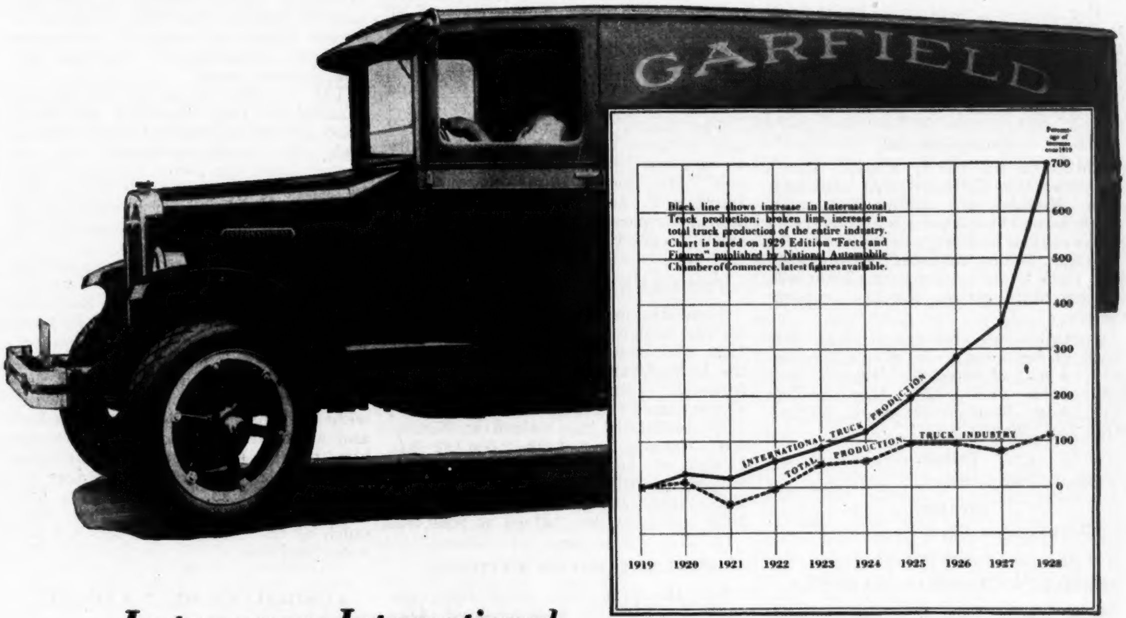
¼c per lb. les than salad oil.

DEC. MARGARINE PRODUCTION.

Margarine produced during December, 1929, according to the U. S. Bureau of Internal Revenue:

	Dec., 1928. Lbs.	Dec., 1929. Lbs.
Uncolored	27,462,600	30,788,128
Colored	1,063,311	1,356,803
Total	28,525,911	32,144,931

Fast-Growing Popularity



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This comparison, indicating the growing preference for Internationals, is offered in no vainglorious spirit but simply as a matter of public record.

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May we add that what Internationals have been doing for others year after year they may rightfully be expected to do for you.

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International Trucks include the ¾-ton Special Delivery; the 1-ton Six-Speed Special; Speed Trucks, 1¼, 1½, and 2-ton; and Heavy-Duty Trucks to 5-ton. Company-owned branches at 176 points and dealers everywhere have the line on their display floors for convenient inspection. Catalogs on request.

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The Week's Closing Markets

FRIDAY'S CLOSINGS

Provisions.

Hog products were irregular the latter part of the week with the undertone steady. The trade was mixed due to week-end evening up, but the shorts covered due to steadiness in hogs, strength in grains and speculative buying.

Cottonseed Oil.

Cotton oil was barely steady. March deliveries thus far have been 5,600 barrels. Refiners are selling September commission house shorts wire buyers on better outside markets. Southeast crude, 7¼c bid; Texas, unquoted; Valley, 7⅝c bid. Cash trade is moderate. The trade is watching cotton acreage reports closely.

Quotations on cottonseed oil at New York Friday noon were: March, $8.40@8.70; April, $8.60@8.90; May, $8.85@8.87; June, $8.90@9.00; July, $9.15@9.17; Aug., $9.20@9.30; Sept., $9.32@9.35; Oct., $9.30@9.40.

Tallow.

Tallow, extra, 6⅝c.

Stearine.

Stearine, oleo, 9⅛c.

FRIDAY'S GENERAL MARKETS.

New York, Feb. 28, 1930.—Lard, prime western, $11.10@11.20; middle western, $11.00@11.10; city, 10⅝c; refined continent, 11⅛c; South American, 11½c; Brazil kegs, 12½c; compound, 10¾c.

BRITISH PROVISION MARKETS.

(By Cable to The National Provisioner.)

Liverpool, Feb. 28, 1930.—General provision market steady but dull. Demand very poor for A. C. hams and picnics; square shoulders and pure lard fair.

Friday's prices were as follows: Hams, American cut, 98s; Liverpool shoulders, square, 84s; hams, long cut, 98s; picnics, 75s; short backs, 90s; bellies, clear, 77s; Canadian, 104s; Cumberland, 92s; Wiltshires, 93s; spot lard, 54s 9d.

HULL OIL MARKET.

Hull, England, Feb. 26, 1930. — (By Cable.)—Refined cottonseed oil, 30s 6d; Egyptian crude cottonseed oil 27s 6d.

LAMB SHIPMENTS SMALLER.

Lamb shipments totaling 403 cars were made during the week ending February 22, 1930, from the northern Colorado, Arkansas Valley and Scotts Bluff sections, compared with 416 cars for the same week last year and 640 cars two years ago. These sections have moved 2,578 cars of lambs since January 1, compared with 2,310 cars last year and 2,885 cars two years ago.

Northern Colorado moved 269 cars of lambs the week ending February 22, compared with 288 cars last year and 492 cars two years ago. The northern Colorado movement since January 1 has been 1,515 cars, compared with 1,334 cars last year, and 1,944 cars two years ago.

The Arkansas Valley shipped 82 cars of lambs last week, compared with 80 cars last year and 58 cars two years ago. The total Arkansas Valley movement since January 1 has been 551 cars, compared with 514 cars last year and 368 cars two years ago.

The Scotts Bluff section moved 52 cars of lambs last week, compared with 48 cars last year and 90 cars two years ago. The Scotts Bluff section, since January 1, has shipped 512 cars of lambs, compared with 462 cars last year and 573 cars two years ago.

1929 CANNED MEAT EXPORTS.

Domestic exports of canned meats for the twelve months ended December, 1929, with comparisons, are reported by the U. S. Department of Commerce as follows: Total canned meats, 1929, 17,251,624 lbs., valued at $5,961,597; 1928, 14,694,810 lbs., valued at $5,324,607. Canned beef, 1929, 2,606,162 lbs., valued at $945,462; 1928, 1,900,305, valued at $676,741. Canned sausage, 1929, 2,139,100 lbs., valued at $706,428; 1928, 2,037,954 lbs., valued at $682,490.

FINLAND BACON EXPORTS.

For the first time since 1923, the Sydvastra Finlands Andelsslakteri, Abo, has found it practicable to export bacon to England. Two hundred sides of bacon were shipped on January 8 to the British market, according to a U. S. Department of Commerce report. This bacon undergoes 45 days of curing, and is good for 10 days from date of shipment.

CANADIAN LIVESTOCK PRICES.

Summary of top prices for livestock at leading Canadian centers, week ended Feb. 20, 1930, with comparisons, as reported by the Dominion Live Stock Branch:

BUTCHER STEERS.

1,000-1,200 lbs.

	Week ended Feb. 20	Prev. week.	Same week, 1929.
Toronto	$10.50	$10.50	$10.15
Montreal	10.75	10.75	9.75
Winnipeg	10.25	10.50	8.50
Calgary	10.00	10.00	8.25
Edmonton	10.00	9.75	8.00
Prince Albert	9.00	9.00	8.25
Moose Jaw	11.00	10.00	8 00
Saskatoon	9.50	9.50	8.25

VEAL CALVES.

Toronto	$15.00	$16.00	$17.00
Montreal	15.00	15.00	15.00
Winnipeg	14.00	14.00	13.00
Calgary	14.00	13.00	12.00
Edmonton	13.50	13.00	14.00
Prince Albert	10.00	9.00	9.00
Moose Jaw	13.00	13.00	12.00
Saskatoon	13.00	12.00	12.00

SELECT BACON HOGS.

Toronto	$15.25	$14.75	$11.75
Montreal	14.75	13.75	11.50
Winnipeg	13.40	13.00	10.75
Calgary	13.25	12.50	10.60
Edmonton	12.85	13.00	10.75
Prince Albert	13.15	12.90	10.75
Moose Jaw	13.30	12.90	10.60
Saskatoon	13.30	12.90	10.55

GOOD LAMBS.

Toronto	$13.00	$13.00	$15.50
Montreal	11.00	11.00	11.00
Winnipeg	10.75	10.50	13.50
Calgary	11.00	11.00	....
Edmonton	....	....	13.00
Prince Albert	9.00	....	....
Moose Jaw	....	....	....
Saskatoon	....	10.00	....

UPHOLDS STOCKYARDS ACT.

Provisions of the packers and stockyards act authorizing the Secreteary of Agriculture to prescribe maximum rates for the services of commission dealers at public stockyards, were held constitutional by the United States Supreme Court this week in an opinion upholding a decree of a Nebraska federal district court.

The validity of the provisions was assailed by Tagg Brothers and Moorhead and other members of the Omaha, Neb., live stock exchange, who appealed from the lower court's refusal to enjoin the Secretary of Agriculture from interferring with a proposed increase in commission charges at the Omaha stockyards.

A new schedule of rates, published by the commission men in January, 1926, was suspended by the Secretary of Agriculture, who, after public hearings, made the suspension permanent.

The commission men in their appeal attacked the secretary's order on several grounds, most important of which were the contentions that the packers and stockyards act does not authorize him to fix the charges for market agencies, and that if the act does undertake to do so, it violates the fifth amendment to the constitution, inasmuch as the charges fixed are for personal services.

AUSTRALIAN MEAT EXPORTS.

Exports of beef and mutton from Sydney, Australia, declined in 1929 as compared with 1928 while lamb exports increased, according to a U. S. Department of Commerce report. Beef exports totalled 1,169,000 quarters during 1929 as compared with 1,223,000 during 1928. Exports of mutton carcasses totalled 470,000 as compared with 667,000 during 1928. Lamb exports totalled 1,600,000 during 1929 as compared with 1,300,000 the previous year. The outlook for 1930 is a 20 per cent decrease, owing to drought affecting calving in Queensland and shortage of beef in southern states. Production of canned beef declined slightly during 1929 with a further decline predicted for 1930.

CHICAGO HIDE MOVEMENT.

Receipts of hides at Chicago for the week ended February 22, 1930, were 3,959,000 lbs.; previous week, 4,427,000 lbs.; same week last year, 3,510,000 lbs.; from January 1 to February 22 this year, 32,035,000 lbs.; same period a year ago, 29,577,000 lbs.

Shipments of hides from Chicago for the week ended February 22, 1930, were 3,906,000 lbs.; previous week, 4,977,000 lbs.; same week last year, 3,081,000 lbs.; from January 1 to February 22 this year, 34,280,000 lbs.; same period a year ago, 33,877,000 lbs.

WEEKLY HIDE IMPORTS.

Imports of cattle hides at leading U. S. ports for week ended Feb. 24, 1930:

Week ended	New York.	Boston.	Phila.
Feb. 21, 1930	48,331	8,914	1,453
Feb. 15, 1930	32,347	5,390	42,502
Feb. 8, 1930	26,205	3,748	472
Feb. 23, 1929	3,957	.....	.....
Feb. 16, 1929	15,908	.....	.....
To date, 1930	242,483	47,276	51,072
To date, 1929	180,064	56,616	.....

Hide and Skin Markets

Chicago.

PACKER HIDES—Despite attempts by buyers to secure all cow hides at lower prices, steady prices finally ruled in the Chicago market with a fairly good movement, estimated around 75,000 hides so far, mixed January and February take-off, running well to latter month. These prices are now bid for all descriptions. One packer participated only in the movement of light native cows, while another packer sold a full line of hides except for light cows. The tariff situation continues to be an uncertain feature of the market and any favorable action in that direction would strengthen the market considerably. Heavy native cows were the first to move, followed by practically a full line by one packer and scattered trading later.

Spready native steers last sold at 16c in the East, last week. About 11,000 heavy native steers moved at 14c for regular points, with some St. Pauls included at 14¼c. One lot of 900 extreme native steers brought 13c.

About 2,800 butt branded steers moved so far at 14c, and about 9,000 Colorados at 13½c. One lot of 800 heavy Texas steers brought 14c; 1,800 light Texas steers sold at 13c; 1,500 extreme light Texas steers sold at 12c and others were included with branded cows.

About 10,600 heavy native cows sold at 12c. One packer sold 2,200 February light native cows, and another about 16,000 January-February take-off, all at 12½c, although these were mostly Missouri River points. About 15,000 branded cows were reported at 12c, all steady prices.

One packer sold 5,000 November forward native bulls at end of last week at 9c; this bid later declined. Branded bulls 8@8½c, nom.

The South American market was steady to firm, with trading light, stocks being fairly well sold up earlier. Last trading in Argentine steers was at $39.50, equal to 16½@16 9/16c, c.i.f. New York, as against $39.00 paid last week. Last sale of Uruguay steers was at $40.62½, equal to 17c, c.i.f. New York, as against $40.00 paid last week.

SMALL PACKER HIDES—Local small packers cleaned up February stocks earlier, practically all hides moving at 12c for native all-weight steers and cows and 11c for branded; last sale at these figures, although one lot moved at ½c less on natives. Killers slow to offer March hides, in view of the better movement in big packer market.

A good movement in the Pacific Coast market last week cleaned up that market to end of January, at 11½c for steers and 10c for cows, f.o.b. shipping points.

HIDE TRIMMINGS—Hide trimmings quoted $34.00@35.00 per ton, nom., Chicago basis.

COUNTRY HIDES—Trading more active with price schedule about unchanged, following the movement at steady prices in the packer market. Good all-weights moving at 10c, selected, delivered, for around 48 lb. av. Heavy steers and cows slow and 9½@10c, nom. Buff weights moving at 10c. Extremes moving at 12c for 25/45 lb. av., with an occasional lot at 12½c reported. Bulls 6½@7c, nom. All-weight branded 8@8½c, flat, less Chicago freight, with outside dealers claiming unable to operate on this basis.

CALFSKINS—One big packer sold 10,000 December-January calf at 18c; this figure declined by others, asking 19c, while one packer is asking 19½c for skins from better northern points.

Chicago city calf nominally 16½c for straight weights; on split weight basis, talking 16c for 8/10 lb. and 17c for 10/15 lb., with last reported sales ½c higher. Mixed cities and countries quoted around 14½@15c; straight countries 13½@14c.

KIPSKINS—One big packer sold 1,600 February native kips at 17½c; another packer moved a quantity of January natives at 17½c and more offered. Last trading in over-weights was at 16½c, branded 14c, since which time natives have declined a cent; trading necessary to establish market.

Chicago city kips nominally 15½c, with last sale at 16c. Mixed cities and countries about 13½@14c; straight countries 12½@13c, nom.

Last sales of packer regular slunks were at $1.25; hairless at 27½c, with small skins half price.

HORSEHIDES — Market continues slow; choice city renderers sold at $4.25 without tails and manes; mixed city and country lots quoted $3.75@4.00.

SHEEPSKINS—Dry pelts quoted 13@14c per lb. One big packer reports last sale shearlings, running half No. 2's, at $1.05; another car, running little better than half No. 2's, sold at 97½c. Pickled skins were well sold earlier at $5.50 for February; last sale reported by one packer $5.25 for March skins, and a car March reported late at $5.00, no details. Wool pelts about unchanged; one lot of 5,500 of 80 lb. av., February to end of season, sold at $1.45; another lot of 9,000 sold at mid-eastern points at $1.37½ for February, $1.42½ March, and $1.45 April.

PIGSKINS—No. 1 pigskin strips 7c, nom., with interest lacking. Gelatine stocks dull; fresh frozen offered at 5½c and unsold; green salted nominally 4c.

New York.

PACKER HIDES—Market active and stocks cleaned up to end of February, including some January hides held over. About 9,000 native steers sold at 14c, 9,000 butt branded steers at 14c and 20,700 Colorados at 13½c, full Chicago prices. Two cars spready native steers sold earlier at 16c.

COUNTRY HIDES — Market about unchanged. Buff weights quoted at 10c, and 25/45 lb. extremes firmly held at 12c for good middle section hides, with occasional sales reported on this basis.

CALFSKINS — Market easier and buyers talking lower prices but actual bids scarce. Couple cars reported sold basis $1.67 for 5-7's, $2.00 for 7-9's, and $2.50 for 9-12's. Two cars heavy kips, 17 lb. and up, sold at $3.70.

New York Hide Exchange Futures.

Saturday, Feb. 22, 1930—Washington's Birthday. No Market.

Monday, Feb. 24, 1930—Close: Mar. 13.90n; Apr. 14.05n; May 14.20b; June 14.45n; July 14.70n; Aug. 14.90n; Sept. 15.15@15.20; Oct. 15.30n; Nov. 15.40n; Dec. 15.55b; Jan. 15.65n. Sales 9 lots.

Tuesday, Feb. 25, 1930—Close: Mar. 13.90n; Apr. 14.05n; May 14.20@14.30; June 14.45n; July 14.70n; Aug. 15.00n; Sept. 15.25@15.31; Oct. 15.40n; Nov. 15.55n; Dec. 15.66@15.75; Jan. 15.75n. Sales 9 lots.

Wednesday, Feb. 26, 1930 — Close: Mar. 13.95n; Apr. 14.10n; May 14.25@14.35; June 14.55n; July 14.85n; Aug. 15.10n; Sept. 15.39 sale; Oct. 15.55n; Nov. 15.70n; Dec. 15.80@15.89; Jan. 15.90n. Sales 13 lots.

Thursday, Feb. 27, 1930—Close: Mar. 14.00; Apr. 14.15; May 14.30@14.50; June 14.60; July 14.90; Aug. 15.15; Sept. 15.40@15.50; Oct. 15.60; Nov. 15.70; Dec. 15.85@16.00; Jan. 15.95.

Friday, Feb. 28, 1930—Close: Mar. 14.25; Apr. 14.40; May 14.65@14.70; June 14.90; July 15.15; Aug. 15.40; Sept. 15.70; Oct. 15.85; Nov. 16.00; Dec. 16.15; Jan. 16.25.

CHICAGO HIDE QUOTATIONS.

Quotations on hides at Chicago for the week ended February 28, 1930, with comparisons, are reported as follows:

PACKER HIDES.

	Week ended Feb. 28.	Prev. week.	Cor. week, 1929.
Spr. nat. strs	@16	@16n	@17
Hvy. nat. strs.	14 @14¼	@14	@14½
Hvy. Tex. strs	@14	@14n	@14ax
Hvy. butt brnd'd strs.	@14	@14	@14ax
Hvy. Col. strs.	@13½	@13½	13 @13½
Ex-light Tex. strs.	@12	@12n	13 @13½
Brnd'd cows.	@12	11½@12	13 @13½
Hvy. nat. cows	@12	@12	13½@14
Lt. nat. cows	@12½	12 @12½	14 @14½
Nat. bulls	@ 9b	9 @ 9½	@10½
Brnd'd bulls	8 @ 8½n	8 @ 8½	9¼@ 9¾n
Calfskins	18 @19	19 @19½n	@22
Kips, nat.	@17½	@18	@19
Kips, ov-wt.	15½@16n	16 @16½	16½@17
Kips, brnd'd.	@13½n	@14n	@15ax
Slunks, reg.	@1.25	@1.25	@1.35
Slunks, hrls.	@27½	@27½	40 @55

Light native, butt branded and Colorado steers 1c per lb. less than heavies.

CITY AND SMALL PACKERS.

	Week ended Feb. 28.	Prev. week.	Cor. week, 1929.
Nat. all-wts.	@12	@12	@14b
Branded	@11	@11	@13b
Nat. bulls	@ 9	@ 9	@10½b
Brnd'd bulls.	@ 8	@ 8	@ 9n
Calfskins	@16½n	@17n	@20
Kips	@15½n	@16	17 @17½n
Slunks, reg.	@1.05	@1.05	@1.15
Slunks, hrls.	20 @25n	20 @25n	@40

COUNTRY HIDES.

	Week ended Feb. 28.	Prev. week.	Cor. week, 1929.
Hvy. steers	9½@10n	9½@10n	11½@12
Hvy. cows	9½@10n	9½@10n	11½@12
Buffs	@10	@10	@12½
Extremes	12 @12½	@12	14 @14½
Bulls	6½@ 7	@ 6½n	8½@ 9
Calfskins	13½@14n	@14n	15 @16n
Kips	12½@13n	@13n	14 @14½
Light calf	1.00@1.10	1.00@1.10	90 @1.00
Deacons	1.00@1.10	1.00@1.10	90 @1.00
Slunks, reg.	60 @75	60 @75	35 @50
Slunks, hrls.	5 @10n	5 @10n	10 @15
Horsehides	3.75@4.50	3.75@4.50	4.50@5.75
Hogskins	50 @55	50 @55	60 @70

SHEEPSKINS.

	Week ended Feb. 28.	Prev. week.	Cor. week, 1929.
Pkr. lambs	1.25@1.50	1.25@1.50	2.60@3.25
Sml. pkr. lambs	1.15@1.45	1.10@1.37½	@2.50
Pkr. shearlgs.	85 @1.20	85 @1.20	1.20@1.50
Dry pelts	13 @14	@14	22 @23

Live Stock Markets

CHICAGO

(Reported by U. S. Bureau of Agricultural Economics.)

Chicago, Ill., Feb. 27, 1930.

CATTLE—Compared with a week ago: Strictly good and choice fed steers scarce, steady on shipper account only; all others unevenly 15@35c lower, on very slow, uneven and unsatisfactory market; shipper demand relatively narrow; all buying interests bearish because of continued sluggish dressed beef trade conditions. Bulk fed steers, $11.50@13.25; well finished weighty bullocks in fairly broad demand, but plain rough kinds dull; extreme top, $15.75, paid for 1,045-lb. yearlings, practical top of $15.00, being paid for both weighty and light steers, 1,633-lb. averages, up to $14.75; light heifer and mixed yearlings, along with butcher heifers, 25@50c higher; all fat cows, weak to 25c lower; cutters, 25@40c off on most sluggish cow market in weeks; bulls, steady to 25c lower; vealers, steady to 50c lower, 105- to 130-lb. averages closing at $10.00@12.50, and only selected kinds at $14.00.

HOGS—Early decline fully recovered late in the week, and in comparison with last Thursday, today's quotations all 35@50c higher. Shipping demand was fair. Small packers were indifferent buyers, and big packers practically out of market. Today's top, $11.50; bulk of good to choice 160- to 220-lbs., $11.20@11.45; 230- to 260-lbs., $10.85@11.25; 270- to 310-lbs., $10.60@10.90; choice 335-lb. weights, $10.40; 130- to 150-lbs., $10.50@11.25; pigs, $9.50@10.75; packing sows, mostly $9.00@10.00.

SHEEP—Continuously lower hoof and dressed prices marked week's lamb trade. Compared with one week ago: Fat lambs, $1.00@1.25 lower; fat ewes, weak to 25c lower. Early bulk light lambs, $10.75@11.25; top, $11.70; late bulk, $10.00@10.50; late sales heavies, $9.50@10.00; fat ewes, mostly $5.00@5.75; top, $5.90.

KANSAS CITY

(Reported by U. S. Bureau of Agricultural Economics.)

Kansas City, Kan., Feb. 27, 1930.

CATTLE—Unevenness featured the fed steer and yearling trade during the week. Choice grades, especially those carrying weight, met a rather broad shipping outlet and held close to steady levels, while lower priced offerings selling under $11.00 also sold to good advantage, with very little change in prices. Most of the offerings, however, were of medium to good grade, and values were reduced 25@50c as compared with last Thursday. The extreme top rested at $14.50 on mixed yearlings, and best heavy steers went at $14.00. Bulk of the fed arrivals cleared from $11.00@12.50. Fat cows moved slowly, but no material change was made in prices. Fed heifers and cutters closed weak to 25c off. Prices on bulls are weak to 25c off, while vealers declined about 50c, with the late top at $13.00.

HOGS—Material price reductions were effected in all classes of hogs early in the week, but a sharp reduction on later days put final prices on a 15@25c higher basis as compared with a week ago. The closing top reached $11.00 on choice 190- to 240-lb. averages. Shippers have been active buyers and have taken the bulk of the 160- to 230-lb. weights. Packing grades are 10@15c over a week ago at $9.50 down.

SHEEP—Another sharp break of around $1.00 reduced fat lamb values to the lowest levels since early in December of 1921. The late top rested at $9.85, which is the first time the outside figure has been under the $10.00 market in nine years. Most late sales of desirable lambs ranged from $9.00@9.75. Shorn offerings cleared from $9.00@9.35, a few heavies down to $8.50. Mature classes are 25@40c lower. Best fat ewes sold up to $5.35.

OMAHA

(Reported by U. S. Bureau of Agricultural Economics.)

Omaha, Feb. 27, 1930.

CATTLE—Fed steers and yearlings met with a slow indifferent demand all week, but with moderate supplies no sharp break resulted. The better grades were supported by a good shipper demand and held about steady, while the lower grades are weak to 25c lower. She stock declined 25@50c; bulls, 15@25c. Vealers held about steady. The week's top price of $14.60 was paid for choice 1,052-lb. weights. Light steers 1,111 lbs., turned at $14.25, with weighty steers, 1,380 lbs., at $13.75.

HOGS—Receipts have continued liberal, but with demand broad from all quarters and liberal inquiry from shippers, the most important factor, the entire trade has carried a strong undertone, with comparisons Thursday to Thursday uncovering a net advance of 15@25c, on all classes. Thursday's top reached $10.75, with bulk of 160- to 250-lb. averages, $10.40@10.65; 250- to 270-lb., $10.25@10.40; 270- to 320-lb., $10.00@10.25; packing sows, $9.25@9.40.

SHEEP—Conditions in the slaughter lamb trade continued unfavorable to selling interests. Burdensome receipts, here and at other leading market centers, coupled with a depressed dressed lamb trade at eastern cities, resulted in further price depressions, and carried values to a new low level for the year. In a general way, the price decline for the period figures $1.00@1.50 on lambs, with matured sheep 25@50c lower. On Thursday, bulk of the fed wooled lambs, 90- to 100-lb. averages, sold $8.75@9.50; lighter lambs, up to $10.00; good and choice ewes, $4.50@5.25.

ST. PAUL

(By U. S. Bureau of Agricultural Economics and Minnesota Department of Agriculture.)

So. St. Paul, Minn., Feb. 26, 1930.

CATTLE—Curtailed marketings the first three days of the week made for uneven upturns on slaughter classes, steers and yearlings ruling strong to in instances 25c higher, all she stock 25c to in spots 50c higher. The steer and yearling quota provided a fairly desirable showing of material, including numerous loads of matured steers at the $12.25@12.50 terms, the latter being the week's carlot top, bulk all steers and yearlings selling at $10.00@11.00. She stock finished to a $6.00@7.50 bulk for fat cows, heifers up to $7.50@9.00, low cutters and cutters $4.25@5.50, bulls continuing from $7.50 downward. Vealers have worked 50c or more lower, good and choice light offerings today selling from $9.50@13.50, the bulk of good calves at $10.50@11.00.

HOGS—The local hog market during the week ruled mostly steady to in spots 10c higher under the support of stronger news elsewhere and lighter runs than last week. Bulk of the 160- to 230-lb. weights cleared at $10.50@10.70 with 230- to around 250-lb. weights at $10.25@10.50, while heavier butchers sold from $9.75@10.25 mostly. Sows brought

$8.50@9.00 largely with pigs and light lights advancing 25c to a $10.50 bulk.

SHEEP—Further depression in the lamb market found prices at the lowest level since the latter part of 1921 and with no immediate relief in sight. Good and choice 70- to 88-lb. lambs cashed at $9.75@10.00, common lambs at $8.00 @8.50, fat ewes selling at $4.50@5.50.

ST. LOUIS

(Reported by U. S. Bureau of Agricultural Economics.)

East St. Louis, Ill., Feb. 27, 1930.

CATTLE—Weak beef prices in the East were reflected in the local steer trade this week. Compared with one week ago: Steers, mixed yearlings and heifers, unevenly steady to 25c lower; cows, low cutters and cutters, 15@25c lower, spots off more on cows; bulls, steady; vealers, 25c lower. Bulk of steers brought $10.00@12.50, with 1,003-lb. yearlings landing $13.00 as top, while best matured steers, scaling 1,118 lbs., made $12.85. Most fat mixed yearlings and heifers claimed $11.50@12.00; 1,606-lb. heifers scoring $13.50 as top, while best mixed yearlings registered $13.25. Most cows scored $7.25@8.25; low cutters, largely $4.25@5.25.

HOGS — Fluctuating swine receipts brought about unevenness in local trade this week. For the Thursday to Thursday period, average quotations were about 25c higher, with the top at $11.50, high point of the week. Most 160- to 250-lb. weights earned $10.90@11.40. Sows bulked at $9.40@9.60.

SHEEP — Liberal marketings of lambs and further declines in dressed trade acted to force prices down to another low point for the season. Compared with a week ago, values were 50c @$1.00 lower. Top wooled lambs Thursday sold at $10.25, with bulk $9.75 @10.00; throwouts, $8.00@8.50.

SIOUX CITY

(Reported by U. S. Bureau of Agricultural Economics.)

Sioux City, Ia., Feb. 27, 1930.

CATTLE — Bearish influences governed fat cattle trade, and all price changes appeared as reductions. Slaughter steers, yearlings and she stock ruled mostly weak to 25c lower, while beef cows showed 25@50c extreme losses. Most fed steers and yearlings turned at $10.75@12.00. A part load strictly good yearlings made $14.00, and heavy bullocks ranged up to $13.50. Several loads of light heifers brought $11.00@12.50, and beef cows bulked late at $6.50@7.75. Vealers declined 50c, and the practical top dropped to $12.00. Bull values continued under pressure, and medium grades on late rounds went at $6.75@7.25 largely.

HOGS—Values were mostly 25c higher and near the season's high mark. Choice 220- to 230-lb. averages topped to shippers at $10.85. Desirable 160- to 250-lb. butchers turned at $10.25@10.75 largely, while most 250- to 300-lb. weights made $10.00@10.50. Packing sows bulked at $9.25@9.50; and smooth lights sold up to $9.65.

SHEEP — Disasterous $1.00@1.25 price breaks occurred and dropped fat lamb prices to new record lows. Strictly choice medium weights made the late $9.75 top sparingly, with the bulk of desirable woolskins, 95 lbs. down, at $9.00 @9.50. Fat ewes held about steady, and choice kinds earned $5.00@5.25.

RECEIPTS AT CHIEF CENTERS.

Combined receipts at principal markets, week ended Feb. 22, 1930, with comparisons:

At 20 markets:	Cattle.	Hogs.	Sheep.
Week ended Feb. 22	194,000	652,000	310,000
Previous week	173,000	756,000	368,000
1929	167,000	683,000	288,000
1928	200,000	964,000	304,000
1927	221,000	638,000	287,000

At 11 markets:	Hogs.
Week ended Feb. 22	586,000
Previous week	671,000
1929	588,000
1928	856,000
1927	570,000
1926	519,000

At 7 markets:	Cattle.	Hogs.	Sheep.
Week ended Feb. 22	150,000	523,000	238,000
Previous week	134,000	616,000	287,000
1929	128,000	516,000	208,000
1928	147,000	742,000	217,000
1927	169,000	502,000	205,000
1926	168,000	448,000	227,000

U. S. INSPECTED HOG KILL.

Hogs slaughtered under federal inspection at nine centers during the week ended Friday, Feb. 21, 1930:

	Week ended Feb. 21.	Prev. week.	Cor. week, 1929.
Chicago	137,580	159,096	166,724
Kansas City, Kan.	49,780	51,473	74,309
Omaha	60,798	60,448	56,497
*St. Louis	50,389	57,009	57,250
Sioux City	36,905	40,976	46,954
St. Paul	57,117	65,260	45,877
St. Joseph, Mo.	27.392	18,000	30,399
Indianapolis	26,052	31,781	20,243
New York and J. C.	Closed	37,709	36,251

*Includes East St. Louis, Ill.

RECEIPTS AT CENTERS

SATURDAY, FEBRUARY 22, 1930.

	Cattle.	Hogs.	Sheep.
Chicago	500	5,500	2,500
Kansas City	700	20,000	300
Omaha	250	8,500	250
St. Louis	75	4,000	250
St. Joseph	100	3,000	1,800
Sioux City	200	8,000	300
St. Paul	150	900	20,000
Oklahoma City	100	1,200	100
Fort Worth	100	300	100
Denver	100	300	2,750
Louisville	100	300	200
Wichita	100	1,000	100
Indianapolis	100	2,500	1,000
Pittsburgh	.....	1,000	600
Cincinnati	100	1,200	100
Buffalo	100	500	600
Cleveland	.....	1,000	300
Nashville	100	500	....
Toronto	.....	100	....

MONDAY, FEBRUARY 24, 1930.

	Cattle.	Hogs.	Sheep.
Chicago	14,000	63,000	19,000
Kansas City	16,000	15,000	10,000
Omaha	10,000	28,000	13,000
St. Louis	2,800	13,500	2,000
St. Joseph	3,600	9,000	6,000
Sioux City	4,000	17,000	8,500
St. Paul	3,600	12,500	4,500
Oklahoma City	1,000	1,500	200
Fort Worth	2,000	1,000	200
Milwaukee	300	1,200	200
Denver	3,100	4,600	6,600
Louisville	200	500	200
Wichita	3,400	3,900	900
Indianapolis	300	4,000	300
Pittsburgh	800	4,800	4,000
Cincinnati	1,300	2,800	300
Buffalo	1,600	5,800	9,400
Cleveland	700	3,400	2,500
Nashville	300	800	....
Toronto	2,000	700	200

TUESDAY, FEBRUARY 25, 1930.

	Cattle.	Hogs.	Sheep.
Chicago	6,000	30,000	11,000
Kansas City	8,000	9,500	10,000
Omaha	7,500	19,000	12,000
St. Louis	3,500	14,500	3,500
St. Joseph	1,500	6,500	6,000
Sioux City	2,500	11,500	4,500
St. Paul	2,000	9,000	1,000
Oklahoma City	1,500	1,300	200
Fort Worth	2,300	1,500	1,600
Milwaukee	800	3,000	200
Denver	900	2,800	8,600
Louisville	300	600	200
Wichita	600	2,900	600
Indianapolis	800	5,000	500
Pittsburgh	.....	800	500
Cincinnati	300	2,400	300
Buffalo	100	1,600	100
Cleveland	200	1,600	1,000
Nashville	200	600	....
Toronto	1,000	800	200

WEDNESDAY, FEBRUARY 26, 1930.

	Cattle.	Hogs.	Sheep.
Chicago	5,500	20,000	15,000
Kansas City	6,500	8,000	7,000
Omaha	5,000	13,000	13,000
St. Louis	1,800	10,000	800
St. Joseph	1,500	5,000	6,000
Sioux City	2,700	9,000	3,500
St. Paul	2,000	12,000	700
Oklahoma City	600	1,900	200
Fort Worth	2,000	1,400	1,900
Milwaukee	500	1,300	200
Denver	800	1,000	7,600
Louisville	300	500	200
Wichita	600	3,100	800
Indianapolis	800	5,000	300
Pittsburgh	100	2,500	500
Cincinnati	400	1,400	300
Buffalo	100	1,800	1,400
Cleveland	200	1,700	400
Nashville	100	900	....
Toronto	600	500	200

THURSDAY, FEBRUARY 27, 1930.

	Cattle.	Hogs.	Sheep.
Chicago	6,000	19,000	11,000
Kansas City	2,000	7,500	11,000
Omaha	3,700	18,000	17,000
St. Louis	1,800	9,000	800
St. Joseph	1,200	6,000	7,000
Sioux City	1,800	13,000	3,500
St. Paul	1,500	7,500	700
Oklahoma City	700	1,200	200
Fort Worth	1,300	1,900	1,800
Milwaukee	400	1,500	200
Denver	400	1,900	500
Louisville	100	500	....
Wichita	400	1,900	500
Indianapolis	400	2,500	200
Pittsburgh	.....	500	300
Cincinnati	200	1,700	200
Buffalo	100	800	1,200
Cleveland	200	1,200	400
Nashville	100	600	200

FRIDAY, FEBRUARY 29, 1930.

	Cattle.	Hogs.	Sheep.
Chicago	2,500	21,000	12,000
Kansas City	600	8,500	3,000
Omaha	1,000	20,000	8,000
St. Louis	800	10,000	800
St. Joseph	500	6,000	7,000
Sioux City	1,000	16,500	3,000
St. Paul	2,000	16,000	2,000
Oklahoma City	600	500	100
Fort Worth	900	1,100	1,000
Milwaukee	200	500	200
Denver	200	700	6,500
Wichita	400	1,700	200
Indianapolis	600	6,000	300
Pittsburgh	....	1,500	800
Cincinnati	400	3,000	200
Buffalo	150	2,100	4,600
Cleveland	100	1,500	800

LIVESTOCK PRICES AT LEADING MARKETS.

Following are livestock prices at five leading Western markets on Thursday, Feb. 27, 1930 as reported to THE NATIONAL PROVISIONER by direct wire of the U. S. Bureau of Agricultural Economics:

Hogs (Soft or oily hogs and roasting pigs excluded):	CHICAGO.	E. ST. LOUIS.	OMAHA.	KANS. CITY.	ST. PAUL.
Hvy. wt. (250-350 lbs.) med-ch.	$10.35@11.05	$10.25@11.00	$ 9.60@10.50	$ 9.75@10.65	$ 9.50@10.40
Med. wt. (200-250 lbs.) med-ch.	10.75@11.50	10.90@11.50	10.20@10.75	10.25@11.00	10.00@10.70
Lt. wt. (160-200 lbs.) com-ch.	10.90@11.50	11.25@11.50	10.00@10.75	10.35@11.00	10.50@10.70
Lt. lt. (130-160 lbs.) com-ch.	10.00@11.35	10.25@11.40	9.25@10.65	9.50@10.90	10.50@10.70
Packing sows, smooth and rough.	8.75@10.10	9.25@ 9.60	8.80@ 9.50	8.25@ 9.60	8.50@ 9.25
Sltr. pigs (130 lbs. down) med-ch.	9.25@10.75	8.75@10.75	....	8.75@10.25	10.25@10.50
Av. cost & wt. Tue. (pigs excl.).	10.77-237 lb.	10.89-221 lb.	10.29-242 lb.	10.55-214 lb.	10.29-232 lb.
Slaughter Cattle and Calves:					
STEERS (1,500 LBS. UP):					
Good-ch.	12.75@14.75	....	....	....	....
STEERS (1,300-1,500 LBS.):					
Choice	14.50@15.00	13.75@14.75	13.00@14.00	13.00@14.50	12.75@14.00
Good	12.75@14.75	11.75@13.75	11.75@13.00	11.50@13.00	11.25@12.75
STEERS (1,100-1,300 LBS.):					
Choice	14.75@15.50	14.25@15.25	13.00@14.75	13.00@14.75	13.00@14.50
Good	12.75@15.00	12.00@14.25	11.75@13.75	11.50@13.75	11.25@13.00
STEERS (950-1,000 LBS.):					
Choice	14.75@15.75	14.25@15.50	13.75@15.25	13.75@15.25	13.75@15.00
Good	12.75@15.00	12.25@14.25	12.00@14.00	11.75@14.00	11.50@13.75
STEERS (800 LBS. UP):					
Medium	11.00@12.75	10.50@12.25	10.00@12.00	10.50@11.75	10.00@11.50
Common	8.75@11.00	8.50@10.75	8.50@10.00	8.75@10.50	7.50@10.00
STEERS (FED CALVES AND YEARLINGS) (750-950 LBS.):					
Choice	14.75@15.75	14.25@15.50	14.25@15.25	14.25@15.50	14.00@15.00
Good	12.75@14.75	12.25@14.25	12.00@14.25	12.25@14.25	12.00@13.75
HEIFERS (850 LBS. DOWN):					
Choice	13.25@14.25	13.00@14.25	12.50@13.75	12.75@14.00	12.50@13.50
Good	11.50@13.50	11.50@13.25	11.00@12.50	10.75@13.25	11.00@12.50
Common-med.	8.00@11.50	8.00@11.50	7.25@11.00	7.50@11.00	7.25@11.00
HEIFERS (850 LBS. UP):					
Choice	10.25@13.75	10.25@13.25	10.00@13.25	10.25@13.50	10.00@13.00
Good	9.25@13.25	8.75@12.75	8.75@12.50	8.75@12.75	8.75@11.75
Medium	8.25@11.50	7.75@11.25	7.75@11.00	8.00@10.75	7.50@10.00
COWS:					
Choice	8.75@10.00	9.50@10.25	8.50@ 9.50	8.75@ 9.75	8.75@ 9.50
Good	7.25@ 8.75	8.25@ 9.50	7.25@ 8.50	7.50@ 8.75	7.50@ 8.75
Common-med.	5.25@ 7.25	6.75@ 8.25	5.75@ 7.25	5.75@ 7.50	5.75@ 7.50
Low cutter and cutter	4.00@ 5.25	4.25@ 6.75	4.25@ 5.75	4.00@ 5.75	4.00@ 6.00
BULLS (YEARLINGS EXC.):					
Beef, good-ch.	7.75@ 9.00	7.75@ 9.00	7.25@ 8.50	7.50@ 9.00	7.50@ 8.75
Cutter-med.	6.50@ 8.25	6.25@ 8.00	6.00@ 7.25	6.00@ 7.50	6.00@ 7.50
CALVES (500 LBS. DOWN):					
Medium-ch.	8.00@10.00	7.50@11.00	8.00@11.00	7.50@12.00	7.00@11.00
Cull-common	7.00@ 8.00	6.00@ 7.50	5.50@ 8.00	5.00@ 7.50	5.50@ 7.00
VEALERS (MILK-FED):					
Good-ch.	9.75@14.00	12.75@14.25	10.00@14.00	9.00@13.50	10.00@14.00
Medium	8.75@ 9.75	10.25@12.75	8.00@10.00	7.50@ 9.00	7.00@10.00
Cull-common	7.00@ 8.75	6.00@10.25	5.00@ 8.00	5.00@ 7.50	5.50@ 7.00
SLAUGHTER SHEEP AND LAMBS:					
Lambs (84 lbs. down)	10.00@10.85	9.75@10.50	9.50@10.00	8.75@ 9.85	9.50@10.00
Lambs (92 lbs. down)	9.25@10.00	9.00@ 9.75	8.00@ 9.50	7.75@ 8.75	8.50@ 9.50
Lambs (all weights)	8.50@ 9.25	8.00@ 9.00	7.00@ 8.00	6.50@ 7.75	8.00@ 8.50
Yearling wethers (110 lbs. down) medium-choice	6.75@ 8.75	6.75@ 8.75	6.50@ 8.75	6.50@ 7.75	6.50@ 8.50
Ewes (120 lbs. down) med-ch.	4.75@ 5.75	4.75@ 5.75	4.00@ 5.25	4.00@ 5.35	4.25@ 5.25
Ewes (120-150 lbs.) med-ch.	4.50@ 5.50	4.50@ 5.75	3.75@ 5.00	3.75@ 5.25	4.00@ 5.00
Ewes (all weights) cull-com.	2.00@ 4.75	2.00@ 4.75	1.50@ 4.00	2.00@ 4.00	1.75@ 4.25

SLAUGHTER REPORTS

Special reports to The National Provisioner showing the number of livestock slaughtered at 15 centers for the week ended February 22, 1930, with comparisons:

CATTLE.

	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Chicago	18,415	17,079	21,525
Kansas City	15,782	16,224	17,456
Omaha	19,970	18,136	13,494
St. Louis	8,103	7,178	6,317
St. Joseph	6,907	5,958	6,954
Sioux City	6,226	6,908	6,951
Wichita	1,813	3,891	1,494
Fort Worth	4,390	4,941	4,916
Philadelphia	1,435	1,434	1,205
Indianapolis	1,896	1,451	774
New York & Jersey City	8,377	8,785	8,621
Oklahoma City	4,618	6,055	4,306
Cincinnati	2,949	2,613	1,183
Denver	1,739	1,790	2,297
Total	102,620	102,443	97,493

HOGS.

	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Chicago	137,589	159,096	166,724
Kansas City	22,523	26,326	26,139
Omaha	53,642	62,435	53,458
St. Louis	18,019	22,360	20,910
St. Joseph	24,734	25,553	25,032
Sioux City	34,290	41,769	42,554
Wichita	5,851	8,760	6,558
Fort Worth	7,881	10,196	9,248
Philadelphia	15,593	16,084	16,295
Indianapolis	23,183	26,954	17,166
New York & Jersey City	52,758	54,958	55,108
Oklahoma City	7,871	10,895	9,156
Cincinnati	20,329	19,434	22,668
Denver	15,495	20,951	16,616
Total	315,958	505,771	487,632

SHEEP.

	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Chicago	42,629	54,004	41,666
Kansas City	31,850	35,078	26,139
Omaha	36,035	48,345	35,431
St. Louis	5,372	7,930	2,363
St. Joseph	30,396	29,270	21,787
Sioux City	15,504	20,516	7,279
Wichita	3,300	2,624	3,657
Fort Worth	2,374	3,398	2,463
Philadelphia	3,803	4,050	4,381
Indianapolis	944	251	250
New York & Jersey City	56,807	60,032	45,808
Oklahoma City	992	1,307	92
Cincinnati	880	991	406
Denver	4,642	7,286	4,670
Total	235,528	275,082	196,392

Boston slaughters omitted.

CANADA INSPECTED SLAUGHTER.

Government inspected slaughters of livestock in Canada, January, 1930:

	Jan., 1930.	Jan., 1929.
Cattle	54,345	57,175
Calves	14,137	14,004
Hogs	206,542	248,855
Sheep	30,879	35,062

PACKERS' PURCHASES

Purchases of livestock by packers at principal centers for the week ended Saturday, February 22, 1930, with comparisons, are reported to The National Provisioner as follows:

CHICAGO.

	Cattle.	Hogs.	Sheep.
Armour and Co.	4,917	1,992	13,503
Swift & Co.	4,669	2,327	17,589
Morris & Co.	1,817	1,198	4,444
Wilson & Co.	3,849	2,781	7,093
Anglo-Amer. Prov. Co.	713	1,177	....
G. H. Hammond Co.	1,966	1,159	....
Libby, McNeill & Libby.	484	....	....

Brennan Packing Co., 7,652 hogs; Independent Packing Co., 699 hogs; Boyd, Lunham & Co., 802 hogs; Western Packing & Provision Co., 5,923 hogs; Agar Packing Co., 4,962 hogs; others, 31,766 hogs.

Totals: Cattle, 18,415; calves, 6,778; hogs, 62,438; sheep, 42,629.

KANSAS CITY.

	Cattle.	Calves.	Hogs.	Sheep.
Armour and Co.	1,949	984	5,729	5,672
Cudahy Pkg. Co.	2,360	631	3,265	6,218
Fowler Straub Co.	472	....	....	....
Morris & Co.	1,856	491	693	4,260
Swift & Co.	1,994	664	6,867	8,696
Wilson & Co.	2,920	697	4,591	6,862
Others	622	136	1,378	142
Total	12,179	3,603	22,523	31,850

OMAHA.

	Cattle and calves.	Hogs.	Sheep.
Armour and Co.	4,460	14,434	10,004
Cudahy Pkg. Co.	4,119	13,522	13,318
Dold Pkg. Co.	1,224	9,519	....
Morris & Co.	2,163	4,205	3,817
Swift & Co.	5,060	11,057	14,894
Eagle Pkg. Co.	20	....	....
Hoffman Bros.	36	....	....
Mayerowich & Vail	4	....	....
Omaha Pkg. Co.	59	....	....
J. Rife Pkg. Co.	12	....	....
J. Roth & Sons	51	....	....
So. Omaha Pkg. Co.	36	....	....
Lincoln Pkg. Co.	461	....	....
Morrell Pkg. Co.	93	....	....
Nagle Pkg. Co.	150	....	....
Sinclair Pkg. Co.	602	....	....
Wilson & Co.	473	....	....
Others	....	38,300	....
Total	19,023	91,037	42,033

ST. LOUIS.

	Cattle.	Calves.	Hogs.	Sheep.
Armour and Co.	1,391	467	1,344	1,413
Swift & Co.	1,279	549	2,466	841
Morris & Co.	1,006	311	....	292
East Side Pkg. Co.	802	....	749	....
Amer. Pkg. Co.	273	231	1,753	127
Heil Pkg. Co.	....	....	284	....
Krey Pkg. Co.	91	77	478	....
Others	3,261	721	11,511	2,699
Total	8,103	2,446	18,585	5,372

ST. JOSEPH.

	Cattle.	Calves.	Hogs.	Sheep.
Swift & Co.	2,557	699	12,655	18,910
Armour and Co.	1,557	410	5,382	5,466
Morris & Co.	1,367	232	6,499	6,020
Others	2,294	135	8,711	1,602
Total	7,775	1,476	33,247	31,998

SIOUX CITY.

	Cattle.	Calves.	Hogs.	Sheep.
Cudahy Pkg. Co.	2,175	92	13,005	4,172
Armour and Co.	2,206	125	10,828	8,318
Swift & Co.	1,417	118	6,975	5,340
Smith Bros.	31	....	87	....
Others	1,855	142	28,166	2,800
Total	7,684	477	59,061	20,630

OKLAHOMA CITY.

	Cattle.	Calves.	Hogs.	Sheep.
Morris & Co.	1,637	698	2,705	261
Wilson & Co.	1,456	649	2,836	575
Others	88	....	650	....
Total	3,181	1,347	6,191	836

Not including 90 cattle, 1,680 hogs, and 156 sheep bought direct.

WICHITA.

	Cattle.	Calves.	Hogs.	Sheep.
Cudahy Pkg. Co.	701	474	3,197	3,268
Jacob Dold Co.	396	20	2,282	32
Fred W. Dold	94	....	372	....
Wichita D. B. Co.	19	....	....	....
Dunn-Ostertag	88	....	....	....
Keefe-Le Stourgeon.	20	....	....	....
Total	1,318	494	5,851	3,300

Not including 4,998 hogs bought direct.

DENVER.

	Cattle.	Calves.	Hogs.	Sheep.
Swift & Co.	476	119	10,182	10,489
Armour and Co.	628	136	2,108	10,155
Blayney-Murphy Co.	332	148	2,832	39
Others	450	135	882	622
Total	1,886	538	16,004	21,305

ST. PAUL.

	Cattle.	Calves.	Hogs.	Sheep.
Armour and Co.	2,484	5,171	18,678	2,736
Cudahy Pkg. Co.	373	642	53	271
Hertz Bros.	141	33	....	....
Swift & Co.	3,937	7,723	27,003	12,037
United Pkg. Co.	1,532	191	....	....
Others	1,115	152	13,989	....
Total	9,582	13,912	59,723	15,044

MILWAUKEE.

	Cattle.	Calves.	Hogs.	Sheep.
Plankinton Pkg. Co.	1,681	6,930	9,020	732
U.D.B.Co., N.Y.	33	....	....	....
The Layton Co.	....	....	711	....
R. Gumz & Co.	116	31	72	31
Armour & Co., Milw.	606	3,457	....	....
N.Y.B.D.M.Co., N.Y.	35	....	....	....
Others	739	331	194	188
Total	3,210	10,749	9,997	951

INDIANAPOLIS.

	Cattle.	Calves.	Hogs.	Sheep.
Foreign	949	2,470	8,601	2,473
Kingan & Co.	1,520	407	9,828	401
Armour and Co.	423	77	834	101
Indianapolis Abt. Co.	754	57	566	156
Hilgemeier Bros.	5	....	1,422	....
Brown Bros.	123	28	146	10
Schussler Pkg. Co.	21	....	406	....
Riverview Pkg. Co.	11	....	131	....
Meier Pkg. Co.	83	27	328	....
Indianapolis Prov. Co.	30	....	253	9
Art Wabnitz	9	48	....	87
Maas Hartman Co.	30	7	....	....
Hoosier Abt. Co.	17	....	....	....
Others	472	109	371	80
Total	4,447	3,230	22,886	3,317

CINCINNATI.

	Cattle.	Calves.	Hogs.	Sheep.
Sam Gall's Sons	....	7	....	116
J. Hilberg & Son	37	....	....	31
Gus. Juengling	133	148	....	70
E. Kahn's Sons Co.	1,089	380	6,169	254
Kroger G. & B. Co.	23	56	834	....
Lohrey Pkg. Co.	3	....	378	....
W. G. Rehn's Sons	109	33	....	....
A. Sander Pkg. Co.	4	....	728	....
J. Schlachter's Sons.	182	180	....	113
J. & F. Schroth Co.	10	....	873	....
John F. Stegner	148	114	....	38
J. Vogel & Son	9	5	366	....
Ideal Pkg. Co.	....	....	545	....
Others	16	....	513	....
Foreign	100	777	3,925	....
Total	1,863	1,700	14,331	622

Not including 1,099 cattle, 14,854 hogs, and 354 sheep bought direct.

RECAPITULATION.

Recapitulation of packers' purchases by markets for the week ended Feb. 22, 1930, with comparisons:

CATTLE.

	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Chicago	18,415	17,079	21,525
Kansas City	12,179	12,886	14,639
Omaha (incl. calves)	19,023	18,767	16,174
St. Louis	8,103	7,178	5,185
St. Joseph	7,775	7,174	8,461
Sioux City	7,684	7,589	7,704
Oklahoma City	3,181	3,798	3,160
Wichita	1,318	3,239	1,177
Denver	1,886	1,290	1,972
St. Paul	9,582	8,738	5,822
Milwaukee	3,210	2,215	1,632
Indianapolis	4,447	4,009	3,833
Cincinnati	1,863	1,784	1,793
Total	98,666	95,746	93,077

HOGS.

	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Chicago	62,438	64,876	119;291
Kansas City	22,523	26,326	26,139
Omaha	91,037	110,778	85,881
St. Louis	18,585	22,360	14,144
St. Joseph	33,247	73,218	31,001
Sioux City	59,061	36,162	62,233
Oklahoma City	6,191	9,725	9,156
Wichita	5,851	8,760	14,546
Denver	16,004	14,393	13,699
St. Paul	59,723	66,600	39,850
Milwaukee	9,997	9,224	6,790
Indianapolis	22,886	23,058	32,310
Cincinnati	14,331	14,523	13,611
Total	421,874	480,003	468,651

SHEEP.

	Week ended Feb. 22.	Prev. week.	Cor. week, 1929.
Chicago	42,629	54,004	41,666
Kansas City	31,850	35,078	21,739
Omaha	42,033	53,011	41,200
St. Louis	5,372	7,930	1,432
St. Joseph	31,998	35,758	24,961
Sioux City	20,630	24,963	9,168
Oklahoma City	836	1,171	92
Wichita	3,300	2,624	3,657
Denver	21,305	28,503	21,290
St. Paul	15,044	6,612	5,945
Milwaukee	951	717	145
Indianapolis	3,317	3,677	4,598
Cincinnati	622	1,272	471
Total	219,887	255,320	176,364

CHICAGO LIVESTOCK

Statistics of livestock at the Chicago Union Stock Yards for current and comparative periods are reported as follows:

RECEIPTS.

	Cattle.	Calves.	Hogs.	Sheep.
Mon., Feb. 17	17,456	2,344	61,818	21,156
Tues., Feb. 18	7,873	3,137	27,057	17,801
Wed., Feb. 19	8,580	2,267	19,916	9,215
Thurs., Feb. 20	6,609	2,803	27,020	11,539
Fri., Feb. 21	1,345	539	15,891	9,708
Sat., Feb. 22	400	200	6,000	2,000
This week	42,263	11,280	157,702	71,419
Previous week	36,689	9,357	209,062	88,214
Year ago	43,220	10,712	172,114	62,655
Two years ago	44,985	15,143	267,313	64,729

Total receipts for month and year to Feb. 22, with comparisons:

	Feb. 1930.	Feb. 1929.	Year 1930.	Year 1929.
Cattle	114,896	133,240	307,574	357,035
Calves	31,636	39,289	78,900	98,773
Hogs	590,585	692,598	1,556,267	1,781,086
Sheep	246,768	196,600	579,429	520,759

SHIPMENTS.

	Cattle.	Calves.	Hogs.	Sheep.
Mon., Feb. 17	4,425	50	17,389	7,262
Tues., Feb. 18	2,133	..	7,643	4,390
Wed., Feb. 19	3,157	50	5,969	3,849
Thurs., Feb. 20	2,555	78	11,267	6,247
Fri., Feb. 21	1,178	..	6,970	4,726
Sat., Feb. 22	100	..	1,500	500
This week	13,548	178	50,738	26,974
Previous week	12,937	291	56,765	27,973
Year ago	11,206	900	52,979	22,035
Two years ago	12,589	729	73,071	19,148

WEEKLY AVERAGE PRICE OF LIVESTOCK.

	Cattle.	Hogs.	Sheep.	Lambs.
Week ended Feb. 22	$12.50	$10.80	$ 5.25	$11.00
Previous week	12.35	10.75	4.85	10.65
1929	12.00	10.45	7.25	16.20
1928	13.00	8.05	8.60	15.65
1927	10.40	11.50	7.75	13.50
1926	9.60	12.00	7.90	12.65
1925	9.40	11.10	8.25	17.10
Av. 1925-1929	$10.90	$10.60	$ 7.95	$15.00

SUPPLIES FOR CHICAGO PACKERS.

Net supply of cattle, hogs and sheep for packers at the Chicago Stock Yards:

	Cattle.	Hogs.	Sheep.
*Week ended Feb. 22	28,800	107,000	43,900
Previous week	23,752	152,297	60,241
1929	32,014	119,135	40,620
1928	32,396	194,242	55,581
1927	37,204	108,928	55,701

*Saturday, Feb. 22, estimated.

HOG RECEIPTS, WEIGHTS, PRICES.

Receipts, average weights and tops and average prices of hogs, with comparisons:

	No. Rec'd.	Avg. Wgt.	Prices Top.	Prices Avg.
*Week ended Feb. 22	157,700	232	$.....	$10.80
Previous week	209,062	231	11.35	10.75
1929	172,114	228	10.95	10.45
1928	267,313	232	8.60	8.05
1927	171,311	231	12.15	11.50
1926	155,151	240	13.85	12.00
1925	222,512	224	11.75	11.10
5-yr. av., 1925-1929	198,000	231	$11.45	$10.60

*Receipts and average weights estimated.

CHICAGO HOG SLAUGHTERS.

Hogs slaughtered at Chicago under federal inspection for week ended Feb. 21, 1930, with comparisons:

Week ended Feb. 21	137,589
Previous week	159,096
Year ago	166,724
1928	215,600
1927	115,000
1926	101,200

CHICAGO HOG SUPPLIES.

Supplies of hogs purchased by Chicago packers and shippers during the week ended Thursday, Feb. 27, 1930, were as follows:

	Wk. ended Feb. 27.	Prev. week.
Packers' purchases	56,904	71,828
Direct to packers	33,680	64,112
Shippers' purchases	51,382	53,946
Total supplies	141,966	189,381

(Chicago livestock prices on opposite page.)

NEW YORK LIVESTOCK.

Receipts of livestock at New York markets for week ended Feb. 22, 1930, are officially reported by the U. S. Bureau of Agricultural Economics:

	Cattle.	Calves.	Hogs.	Sheep.
Jersey City	4,141	8,898	1,624	26,885
Central Union	2,154	1,373	1,010	16,361
New York	102	3,650	25,858	5,210
Total	6,397	13,921	28,492	48,456
Previous week	7,636	10,542	27,777	48,768
Two weeks ago	8,687	14,215	27,868	51,592

Ice and Refrigeration

Plant Cooling Notes

For the Meat Plant Employee Who Is Interested in Refrigeration.

COMPRESSOR CYLINDER OIL.

The comparatively low temperatures experienced in the compression cylinders of refrigerating machinery do not call for the use of an oil of exceptionally high flash point.

It has been estimated that even in a CO_2 machine the refrigerant would leave the compressor chamber at an average temperature of not more than 170° F., while the heat of an ammonia machine running under normal conditions would be lower still.

On the assumption, however, that low flash-point and low vaporisation point are definitely correlated, it has been suggested that the use of low flash-point oils is undesirable owing to the risk of the oil, instead of condensing and dropping to the bottom of the separator, passing in excessive quantities —with the refrigerant in the form of vapour—into the condenser and evaporator coils. Oil is a poor conductor of heat, and such a misplacement would tend to impair seriously the efficiency of the whole system.

Though normally a mineral oil will vaporise at a temperature from 150° F. to 180° F. below its open flash-point, the relation between the two is by no means constant.

Oils giving a close flash test of over 300° F. will be found to comply with most specifications for non-freezing lubricants and have proved themselves adequate to meet existing conditions of service.—Ice and Cold Storage.

REFRIGERATION NOTES.

An addition to cost about $400,000 is being planned to the plant of the Union Storage & Warehouse Co., Charlotte, N. C.

An increase in capacity will be made to the plant of the Emaus Ice & Cold Storage, Allentown, Pa.

The Natural Cold Storage, Timberville, Va., will spend about $40,000 enlarging its plant.

The Sunset Cold Storage Co., San Antonio, Tex., has installed additional equipment in its plant.

Control of the Growers Ice & Precooling Plant, Mountain View, Calif., has been purchased by the Pacific Ice Co. The plant will be enlarged and additional equipment installed.

An ice and cold storage plant will be erected in Canon City, Colo., by the Hynes Ice & Cold Storage Co.

One million dollars will be spent by the Pennsylvania Railroad for a second unit to its cold storage plant in Jersey City, N. J.

A cold storage plant to cost about $65,000, with equipment, will be erected in Worcester, Mass., by the Boston & Maine Railroad.

The Dutchess Ice, Fuel & Cold Storage Co., Poughkeepsie, N. Y., has been incorporated with a capital stock of $330,000.

The Southern Public Service Co., Greensboro, N. C., will erect a cold storage plant.

Papers of permanent dissolution have been filed by the Peoples Ice & Cold Storage Co., Terre Haute, Ind.

The Pacific Refrigerating & Transit Co., Long Beach, Calif., has been chartered with a capital stock of $1,000,000.

NEW SILICA GEL SUBSIDIARY.

Silica Gel Dehydration & Refrigeration, Inc., has been formed as a subsidiary of the Silica Gel Corporation, to engage in all forms of refrigeration, air-cooling and dehydration. The new company will operate under a Maryland charter, application for which was filed February 18. It will have capital stock of 50,000 shares of class A, par value $100 a share, and 1,000 shares of no par common stock. It is reported that the same officials and most of the directors of the parent corporation will manage the affairs of the new subsidiary.

DRYICE SHOWS RAPID GROWTH.

An increase of 175 per cent in sales is reported by the DryIce Corporation of America for 1929. During the year there were 27,376,000 lbs. sold, compared with 9,959,518 lbs. in 1928. The company is now operating plants in 13 cities and has plants under construction in seven other cities. The present total capacity is in excess of 160 tons per day, but with the completion of new facilities now under way capacity will be increased to over 300 tons per day.

PITTSBURGH PACKAGE SURVEY.

(Continued from page 30.)

and the records of actual choice," the report says, "would indicate that a much larger proportion chose on the basis of visibility than the percentages indicate. The transparent wrapping ranked first, glass was second, and paper boxes third."

In the case of steak, 29 per cent of those interviewed offered cleanliness as the reason for choosing particular containers. Twenty-four per cent said they chose a particular container because of convenience, and 24 per cent because they could see the product.

The Cellophane package, glass containers and the paper box in which the steak was visible were chosen much more frequently by the consumers than any of the other packages.

Various reasons were given by those who preferred bulk to package bacon. "Freshness and price are the two ranking reasons for preference of bulk, habit the leading automatic preference."

Bulk or Packaged? Reasons.

Some preferred bulk because they liked to direct the slicing. Other reasons given were that any weight can be purchased; that bulk bacon keeps better; has better flavor; is handled less, does not dry out as much; and has a better appearance.

In the case of steak, 26 per cent of those interviewed were of the opinion that sirloin steak in bulk would be fresher than in package.

A good many said they buy bulk steak from habit. Many other reasons were given, indicating that custom was a controlling influence in the case of this product which so far had been offered to the public in package form in only a limited way.

There was a feeling that packaged steaks would be successful if packers were able to establish their brands as quality guarantees. Some consumers suggested that packaging of steak would result in standardization and uniformity of quality and would, therefore, be welcome.

Some were of the opinion that packaging of meats eliminates many of the evils of inefficient and careless butchers. Some indicated that they would buy packaged meats only after packaging had become established and a uniform guaranteed quality could be obtained.

A restaurant owner visiting the exhibit said he wraps sirloin steaks in Cellophane and places them in the refrigerator until they are to be cooked and served to customers. He does this in order to conserve space, since wrapped steaks can be piled upon each other without discoloring and are more convenent to handle.

Extra Cost of Packaging.

Of those interviewed 37 per cent were willing to pay extra for certain packages while 56 per cent indicated they would not pay extra for packages. More subjects were willing to pay extra for bacon in the Cellophane-wrapped package than for any other. The paper box in which the bacon was visible ranked second in the willingness of consumers to pay more.

A much smaller proportion of the subjects were willing to pay extra for packages of steak than for bacon, 37 per cent being willing to pay extra for at least one of the packages for bacon while only 22 per cent were willing to pay extra for any of the packages for steak.

The bulk of those interviewed represent families of two and three persons. The weight of sliced bacon most frequently purchased is one pound, 50 per cent of the subjects interviewed preferring this unit. Sixteen per cent preferred to buy half a pound at a time. Even in the families containing five persons purchases were generally of one pound of sliced bacon.

One and one-half pounds seemed to be the purchase unit for sirloin steak, although a smaller number purchase by the pound. Even in families of four the one and one-half pound unit seems to prevail, although in one-third of the cases, purchases were made in 2 lb. pieces.

The first article reporting on "Consumer Attitude Toward Packaging of Meat," as shown in the Pittsburgh survey, appeared in THE NATIONAL PROVISIONER of January 18, 1930. The second article, discussing that portion of the study relating to consumer purchase of meats already packaged, appeared in the issue of February 8, 1930.

The next article in the series will discuss consumer familiarity with trade names and brands.

NEW PORK YIELD TESTS.

(Continued from page 27.)

nificant cause, have been worked out for the yield of hams to warm carcass weight, because of the fact that warm carcass weight is a much more constant factor than either of the other two weights.

This table shows that for each separate lot, the probability that the heavier gilt yield over that of the barrows of the same lot, was not due to accident or mere chance, but rather to some real significant cause inherent in the gilts themselves, by very consistent and heavy odds as "thousands to one".

When the sum of the six lots is taken, the odds become tremendous, being literally "billions to one" against pure chance, and in favor of there being some deep-seated really significant occasion for the gilts to be heavier in the ham than barrows.

While neither of the two statistical methods applied here give a reason for this biological difference, it is a well known fact that in many species of animals, the females are heavier in the hips than the males.

The significance of this difference between gilts and barrows may be shown by another means, known as "Student's Method", from the pseudonym of its originator, Gossett of Dublin, which is shown in Table 7. Here it is seen that the probability of a barrow ever yielding hams as heavy as, or heavier than, his litter sister or any gilt of the same weight and type class, would not be expected to occur oftener than once in 2,500 cases.

When these figures are applied to the economics of the packing industry, and translated into the packers' language, they tell an interesting story. They say that on the average, every 100 pounds of gilt carcass carries .68 of a pound more of ham, than an equal weight of barrow carcass. Or in other words, that every 150 pounds of gilt carcass carries one more pound of ham than the same weight of barrow carcass.

If carried still further, they say that out of every 100 gilt carcasses a packer has in his cooler, assuming an average warm weight of 200 pounds, he will cut out 136 more pounds of ham, than from 100 barrow carcasses of the same average weight. This will be worth, at an assumed average wholesale price of 18 cents, $24.48, or in round numbers, between $24.00 and $25.00 for every 100 gilts.

Applied to the entire industry, these figures become astounding. Out of some twenty odd million gilts killed in the United States annually, assuming the same averages as above, there would be 4,000,000,000 pounds of gilt carcass, yielding 27,200,000 more pounds of ham than the same weight of barrows, and bringing in to the packing industry $5,440,000, or in round numbers between five and six million dollars.

This is the story of ham yields. It will be interesting to see how gilts and barrows differ in regard to yield of loins, bellies, and shoulders. The difference in loin yields will be discussed in the next article in this series.

TABLE 6. STATISTICAL TREATMENT.

No. Breed.	Gilt average carcass yield.	Barrow average carcass yield.	d (Difference)	Standard deviation	Probable error	S D / P E	Odds, that difference is significant, and not due to chance alone.*
10 Yorkshire	19.69	19.02	.67	.2119	†.0452	4.69	642 to 1
13 Mixed	18.30	17.26	1.04	.2884	†.0540	5.34	7,447 to 1
19 Meat type	18.30	17.76	.53	.1216	†.0188	6.49	219,073 to 1
13 Yorkshire	17.68	17.02	.66	.1831	†.0343	5.34	7,447 to 1
24 Chesters	18.19	17.71	.48	.0980	†.0135	7.26	4,137,980 to 1
30 Mixed	19.31	18.61	.70	.1278	†.0157	8.14	100,142,000 to 1
109 Total	111.47	107.39	4.08				
Average yield to carcass wt.	18.58	17.90	.68	.0651	†.0042	15.51	infinity to 1
Average yield to shrunk live weight	15.16	14.58	.58	.0554	†.0036	15.48	infinity to 1
Average yield to filled live weight	14.44	13.91	.53	.0509	†.0033	15.47	infinity to 1

*The Odds are "billions to one" in favor of there being some real significance attending the superiority of gilts over barrows in yield of hams, and against the probability that these differences were the result of fortuitous chance circumstances in these particular tests.

†Plus or minus.

TABLE 7. APPLICATION OF "STUDENT'S" METHOD.

No. Breed	Gilt Average Carcass Yield	Barrow Average Carcass Yield	d (Difference)	d' (Deviation)	$(d')^2$ (Deviation Squared)
10 Yorkshire	19.69	19.02	.67	—.01	.0001
13 Mixed	18.30	17.26	1.04	+.36	.1296
19 Meat type	18.30	17.76	.53	—.15	.0225
13 Yorkshire	17.68	17.02	.66	—.02	.0004
24 Chesters	18.19	17.71	.48	—.20	.0400
30 Mixed	19.31	18.61	.70	+.02	.0004
109 Total	111.47	107.39	4.08	.00	.1930
Average	18.58	17.90	.68		.03216667

$$\text{Standard deviation} = \sqrt[2]{.03216667} = .1793 + .0116 \text{ Probable error}$$

$$Z = \frac{.68}{.1793} = 3.23$$

Odds = 2,500 to 1 against the probability of a barrow ever being found that will yield hams as heavy as, or heavier than, gilts of the same weight and type class.

QUICK FROZEN MEAT CUTS.

(Continued from page 29.)

lbs. 1 oz. before freezing weighed 14 lbs. after being defrosted.

Pork chops which weighed 5 lbs. 14¼ oz. before freezing were found to have lost 1 oz. when thawed.

No Loss in Steak Weights.

Three fresh steaks weighing 5 lbs. 14 oz. showed no loss in weight after being thawed.

One fresh steak weighing 2 lbs. 3¼ oz. showed no loss in weight after thawing.

One aged steak weighing 2 lbs. 5¼ oz. showed no loss in weight after thawing.

These cuts were wrapped, frozen by the Birdseye process, defrosted immediately after freezing, and weighed at once. It is believed the loss in weight would have been greater in some cases if the meat had been allowed to stand after defrosting, the loss increasing with the time elapsed before weighing.

In another case unwrapped lamb chops, pork chops, steaks and beef tenderloins were quick-frozen (by the Birdseye process), defrosted and weighed to determine the loss in weight, if any.

Indicates Freezing Efficiency.

In only one case was there any loss, this occurring in beef tenderloins weighing a little over 6 lbs. The loss was ¼ oz. and occurred during the time the loins were being frozen.

A Chicago packer who has experimented rather extensively with the quick freezing of meat cuts has found that the leakage occurring after defrosting closely approximates the leakage from fresh cuts, being slightly greater.

From the information available at this time, it seems possible that the leakage from defrosted, quick-frozen cuts may be a reliable index to the efficiency of the quick-freezing method.

If normal leakage occurs — what would escape from an unfrozen cut of the same weight under similar conditions—the method, it is said, may be considered efficient. If more than a normal amount of liquid escapes it may be assumed that the freezing process might be improved.

GOBEL FINANCIAL STATEMENT.

(Continued from page 28.)

hart, Rodney Hitt, Andrew D. Loffler and Henry Merkel, vice-presidents; Vincent Morrison, secretary; Thomas W. Bryant, treasurer; Joseph B. Hallinan, assistant treasurer and F. Howard Firor, assistant secretary.

The directors are J. E. Decker, Jacob E. Decker & Sons; Frank M. Firor, president; F. Howard Firor, assistant secretary; William J. Hammerslough, Lehman Brothers; Rodney Hitt, Hitt, Farwell & Co.; Harold H. Lehman, Lehman Brothers; Andrew D. Loffler, vice-president; Henry Merkel, Merkel, Inc.; George K. Morrow, chairman, Gold Dust Corporation; George W. Spence, president, Peoples National Bank, Brooklyn; and Ralph D. Ward, president, Drake Bakeries, Inc.

Chicago Section

Fred Dryfus, Dryfus Packing Co., Lafayette, Ind., was in Chicago during the week.

—

"Al" Wallmo, sales executive of Adolf Gobel, Inc., New York, spent a few days in Chicago this week.

—

Isaac Powers, vice-president and manager, Home Packing & Ice Co., Terre Haute, Ind., was in town this week.

—

Packers' purchases of livestock at Chicago for the first four days of this week totaled 15,229 cattle, 6,843 calves, 51,387 hogs and 40,995 sheep.

—

John W. Hall is spending several weeks at Hot Springs, Ark., getting the Chicago winter and soot out of his system or, as John puts it, "getting laundered, purified and dry cleaned."

—

Harry I. Hoffman, vice-president of the J. S. Hoffman Co., Chicago, left Wednesday for New York, where he is spending several days with the New York organization of J. S. Hoffman Co., Inc.

—

W. R. Brown of the legal department of Wilson & Co., Chicago, accompanied by Mrs. Brown and M. Rosenback of the export department, sailed for England on the S. S. Majestic on February 21.

—

Provision shipments from Chicago for the week ended Feb. 22, 1930, with comparisons, were as follows:

	Last wk.	Prev. wk.	Cor. wk., 1929.
Cured meats, lbs.	17,086,000	18,467,000	16,045,000
Fresh meats, lbs.	34,218,000	44,601,000	34,196,000
Lard, lbs.	5,277,000	9,043,000	5,154,000

—

Trading in hog futures opens on the Chicago Live Stock Exchange, March 1. A feature will be made of trading on the opening day, with representatives of all branches of the trade in attendance to watch the inauguration of this new departure in a market dealing with a living commodity—the first of its kind to indulge in future trading.

—

Kurt Leube, of Schaub & Co. Ltd., Malmo, Sweden, was a visitor at THE NATIONAL PROVISIONER during the week. Mr. Leube, accompanied by Mrs. Leube, has been in this country for some time and has visited from coast to coast, looking over the edible by-products trade. Schaub & Co. have buying organizations throughout Europe, with a central office in Hamburg.

ARGENTINE BEEF EXPORTS.

Cable reports of Argentine exports of beef this week up to Feb. 27, 1930, show exports from that country were as follows: To England, 72,127 quarters; to the Continent, 40,671 quarters.

Exports of the previous week were as follows: To England, 83,108 quarters; to the Continent, 48,024 quarters.

ELGIN PACKER PASSES.

Charles A. Kerber, president and one of the founders of Kerber Packing Company, a leading meat packing concern, died at his home at Elgin on February 21 at the age of 74.

Mr. Kerber went to Elgin from Kenosha, Wis., in 1882, and started a packing business. He was a charter member and one of the first directors of the American Meat Packers' Association.

He is survived by his widow, Alice Beckwith Kerber, three daughters, Mrs. William Kemler of Rockford, Mrs. Ralph W. Crocker, and Mrs. John A. Sloan, Jr., of Elgin; a sister, Miss Emma Kerber of Elgin; and two brothers, Will A. Kerber and O. A. Kerber of Elgin. Funeral services were held February 23 in Elgin, with the burial at Bluff City cemetery.

THE LATE CHARLES A. KERBER.
Picture taken by THE NATIONAL PROVISIONER when Mr. Kerber was elected as a charter director of the American Meat Packers' Association in 1906.

As indicated by his being a charter member and one of the first board of directors of the trade association of his industry, Mr. Kerber took a genuine interest in his industry and the men in it. He was a believer in industry education, and made it a practice to enroll the key men of his organization in the educational courses of the Institute of Meat Packing. This he did at his own expense.

He was idolized by his men. The day before his death he called them to his bedside, bid them a cheerful goodbye, and told them to "carry on" after he was gone.

REWARD FOR MEAT STORIES.

University scholarships are to be awarded as major prizes in the seventh national meat story contest just announced for high school girls of the United States. The contest is held annually under the direction of the National Live Stock and Meat Board and has the indorsement and support of the U. S. Department of Agriculture and educational institutions throughout the country.

The contest is intended as a supplementary project to the regular home economics work of high school girls. More than 16,000 students representing high schools in every state participated last year.

Contestants are permitted to write on any angle of the subject of meat they desire. These essays will be judged by a committee of prominent home economics authorities. The contest will close April 1.

The revelation by a government survey that the average housewife's knowledge of meat is very limited was one of the incentives for establishing this project for housewives of the future.

TRADE GLEANINGS.

T. L. Lay Packing Co., Knoxville, Tenn., has purchased a tract adjoining its plant on East Jackson ave. for future expansion purposes.

Field & Co., Owensboro, Ky., has acquired the packinghouse of the H. D. Binks Provision Co., Bowling Green, Ky. John W. Stout, Bowling Green representative of Field & Co., will manage the plant.

The Idaho Animal By-Products Co., Nampa, Ida., plans to erect a new plant on a recently purchased ten-acre tract north of Nampa. Tallow, chicken feed, hides and fertilizer will be manufactured.

Lyman B. Chipman, Inc., Portland, Me., wholesale and retail meats, has been incorporated for $200,000.

The Joseph Baum Packing Co., Kansas City, Kas., has purchased property adjoining its plant at Third st. and Central ave. The company will erect a cold storage loading dock. Estimated cost, $35,000.

PFAEHLER SAUSAGE PLANT.

Karl Pfaehler, well-known Detroit sausage manufacturer, has disposed of his interest in the Eastern Market Sausage Co., Detroit, to his associate, A. Froehlich. He is building a new modern sausage plant, which will be ready for operation about May 1, under the name of Karl Pfaehler.

"I would not be without THE NATIONAL PROVISIONER for a single week," writes Mr. Pfaehler in telling of his plans.

GANGSTERS FOR TANKAGE?

A Canadian packer makes the following suggestion to Chicago of a utilitarian use for gangsters. He says:

"Why don't Chicagoans try that gang of thugs you support in an old-fashioned try-pot instead of in the police court? The last roundup ought to render a full carload of tankage."

Chicago Provision Markets

Reported by THE NATIONAL PROVISIONER DAILY MARKET SERVICE

CASH PRICES.

Based on actual carlot trading, Thursday, Feb. 27, 1930.

Regular Hams.

	Green.	S. P.
8-10	21½	21
10-12	20¼	20¼
12-14	19¾	19¼
14-16	19¼	18¼
16-18	18¾	18¼
18-20	18½@18¾	18¼
10-16 range	19½	....
16-22 range	18½@18¾	....

S. P. Boiling Hams.

	H. Run.	Select.
16-18	18¼	18¾
18-20	18¼	18¾
20-22	18¼	18¾

Skinned Hams.

	Green.	S. P.
10-12	21¾	20¾
12-14	21	20½
14-16	21	19½
16-18	20½	19¼
18-20	20	19
20-22	19	18½
22-24	18	17½
24-26	17	16½
25-30	16	16
30-35	15½	15½

Picnics.

	Green.	S. P.
4-6	14¾	14¾
6-8	13	12¾
8-10	13	12⅝
10-12	12¾	12½
12-14	12¾	12½

Bellies.

	Green.	S. P.
6-8	20	20
8-10	20	20
10-12	19	19
12-14	17	17
14-16	16	16
16-18	15¾	15¾

Dry cure bellies 1c over S. P. bellies.

D. S. Bellies.

	Clear.	Rib.
14-16	14½	....
16-18	14½	....
18-20	14⅛	....
20-25	13¾	14
25-30	13½	13¾
30-35	13¼	13⅜
35-40	13⅛	13⅛
40-50	12¾	12¾

D. S. Fat Backs.

8-10	8¾
10-12	9½
12-14	10¼
14-16	11½
16-18	12
18-20	12¼
20-25	12½

D. S. Rough Ribs.

45-50	....
55-60	....
65-70	....
75-80	....

Other D. S. Meats.

Extra short clears	35-45	12½
Extra short ribs	35-45	12½
Regular plates	6-8	10½
Clear plates	4-6	9
Jowl butts		9¼

FUTURE PRICES.

SATURDAY, FEBRUARY 22, 1930.

HOLIDAY. NO MARKET.

MONDAY, FEBRUARY 24, 1930.

	Open.	High.	Low.	Close.
LARD—				
Mar.	10.62½	10.62½	10.50	10.50ax
May	10.82½-85	10.85	10.65	10.65
July	11.00	11.00	10.87½	10.87½
Sept.	11.20	11.20	11.07½	11.07½ax
CLEAR BELLIES—				
May	13.62½-65	13.65	13.35	13.40ax
July	13.70	13.72½	13.70	13.70ax

TUESDAY, FEBRUARY 25, 1930.

	Open.	High.	Low.	Close.
LARD—				
Mar.	10.45	10.45	10.37½	10.40b
May	10.60	10.60	10.55	10.60b
July	10.82½	10.85	10.80	10.82½—ax
Sept.	11.02½	11.05	11.00	11.05b
CLEAR BELLIES—				
May	13.32½	13.35	13.30	13.32½
July	13.65	13.65	13.60	13.60

WEDNESDAY, FEBRUARY 26, 1930.

	Open.	High.	Low.	Close.
LARD—				
Mar.	10.60	10.62½	10.60	10.62½
May	10.70	10.80—	10.70	10.80b
July	10.95-97½	11.05	10.95	11.05b
Sept.	11.20	11.25	11.20	11.25b
CLEAR BELLIES—				
May	13.37½	13.45	13.37½	13.45b
July	13.75	13.75	13.72½	13.72½

THURSDAY, FEBRUARY 27, 1930.

	Open.	High.	Low.	Close.
LARD—				
Mar.	10.67½	10.67½	10.62½	10.62½ax
May	10.87½	10.87½—	10.82½	10.82½ax
July	11.12½	11.12½	11.05—	11.05—ax
Sept.	11.32½	11.32½	11.27½	11.27½ax
CLEAR BELLIES—				
May	13.50	13.60	13.50	13.55b
July	....	....	....	13.82½b

FRIDAY, FEBRUARY 28, 1930.

	Open.	High.	Low.	Close.
LARD—				
Mar.	10.62½	10.62½	10.60	10.60
May	10.82½	10.82½	10.80	10.80ax
July	11.07½	11.07½	11.02½—	11.05ax
Sept.	11.27½	11.27½	11.25	11.25ax
CLEAR BELLIES—				
May	13.55	....	....	13.55
July	....	....	....	13.80

Key: ax, asked; b, bid; n, nominal; — split.

CANADIAN MEAT EXPORTS.

Exports of livestock and meats from Canada to the United States for January, 1930, with comparisons for 1929, according to the Dominion Live Stock Branch:

Livestock, No.—	Jan., 1930.	Jan., 1929.
Cattle	3,205	5,023
Calves	3,303	2,609
Hogs	4	41
Sheep	121	936
Meats, lbs:		
Beef	1,049,300	1,272,300
Bacon	189,100	240,400
Pork	168,600	117,000
Mutton	700	32,000

CANADIAN MEATS IN STORAGE.

Cold storage holdings of meats in Canada as of February 1, 1930, as reported by the Dominion Live Stock Branch, with comparisons:

	On Feb. 1, 1930. Lbs.	On Jan. 1, 1930. Lbs.	On Feb. 1, 1929. Lbs.	5-Yr. Avg., Feb. 1. Lbs.
Beef	20,211,101	23,046,854	17,804,947	20,428,590
Veal	2,592,278	3,239,765	1,233,803	1,547,869
Pork	31,986,864	28,065,576	37,759,482	39,269,466
Mutton & lamb	7,694,632	8,650,621	4,649,132	5,107,254

CHICAGO RETAIL MEATS

Beef.

Week ended Feb. 26, 1930. Cor. wk. 1929.

	No. 1.	No. 2.	No. 3.	No. 1.	No. 2.	No. 3.
Rib roast, hvy. end	35	30	16	35	30	16
Rib roast, lt. end	45	35	20	45	35	20
Chuck roast	32	27	21	30	27	21
Steaks, round	50	40	25	45	40	25
Steaks, sirl. 1st cut	45	40	25	50	40	22
Steaks, porterhouse	60	45	25	75	45	29
Steaks, flank	28	25	18	28	25	18
Beef stew, chuck	27	22	15	27	22	17
Corned briskets, boneless	32	28	18	28	24	18
Corned plates	20	18	10	20	15	10
Corned rumps, bnls.	25	22	18	25	22	18

Lamb.

	Good.	Com.	Good.	Com.
Hindquarters	30	22	35	34
Legs	28	23	40	30
Stews	15	15	22	15
Chops, shoulder	25	20	25	20
Chops, rib and loin	50	25	60	25

Mutton.

Legs	24	..	24	..
Stew	14	..	10	..
Shoulders	16	..	14	..
Chops, rib and loin	35	..	35	..

Pork.

Loins, 8@10 av.	26	@27	24	@26
Loins, 10@12 av.	25	@26	24	@26
Loins, 12@14 av.	23	@25	21	@22
Loins, 14 and over	20	@21	18	@21
Chops		@28		@27
Shoulders	18	@20		@18
Butts	22	@23		@22
Spareribs	16	@17		@16
Hocks		@12		@12
Leaf lard, raw		@14		@14

Veal.

Hindquarters	32	@35	30	@35
Forequarters	20	@24	22	@24
Legs	30	@35	30	@35
Breasts	16	@22	16	@22
Shoulders	20	@22	18	@22
Cutlets		@50		@50
Rib and loin chops		@40		@50

Butchers' Offal.

Suet	@ 4	@ 5½
Shop fat	@ 2½	@ 3
Bone, per 100 lbs.	@50	@50
Calf skins	@16	@22
Kips	@14	@21
Deacons	@12	@12

CURING MATERIALS.

	Bbls.	Sacks.
Nitrite of soda, l. c. l. Chicago	9¾	
Saltpeter, 25 bbl. lots, f.o.b. N. Y.:		
Dbl. refined granulated	5⅝	5½
Small crystals	7¼	
Medium crystals	7⅝	
Large crystals	8⅛	
Dbl. rfd. gran. nitrate of soda	3⅝	3½
Less than 25 bbl. lots ⅛c more.		
Boric acid, carloads, pwd., bbls.	8¾	8¼
Crystals to powdered, in bbls., in 5 ton lots or more	9¼	9⅝
In bbls. in less than 5-ton lots	8½	9
Borax, carloads, powdered, in bbls.	5	4¾
In ton lots, gran. or pow., bbls.	5	4¾

Salt—

Granulated, carlots, per ton, f.o.b. Chicago, bulk	$6.60
Medium, carlots, per ton, f.o.b. Chicago, bulk	9.10
Rock, carlots, per ton, f.o.b. Chicago	8.60

Sugar—

Raw sugar, 96 basis, f.o.b. New Orleans	@3.64
Second sugar, 90 basis	None
Syrup testing 63 and 65 combined sucrose and invert, New York	@ .38
Standard gran. f.o.b. refiners (2%)	@4.95
Packers curing sugar, 100 lbs. bags, f.o.b. Reserve, La., less 2%	@4.45
Packers curing sugar, 250 lb. bags, f.o.b. Reserve, La., less 2%	@4.35

SPICES.

(These prices are basis f.o.b. Chicago.)

	Whole.	Ground.
Allspice	23	25
Cinnamon	14	18
Cloves	26	30
Coriander	6	8
Ginger	..	22
Mace	90	95
Nutmeg	..	30
Pepper, black	32¾	36½
Pepper, Cayenne	..	30
Pepper, red	..	20
Pepper, white	42	46½

CHICAGO MARKET PRICES

WHOLESALE FRESH MEATS.

Carcass Beef.

	Week ended Feb. 27, 1930.	Cor. week, 1929.
Prime native steers	25 @26	21 @24
Good native steers	23½@24½	20 @21
Medium steers	21½@23	18 @20
Heifers, good	19 @23	18 @20
Cows	14 @17	14 @18
Hind quarters, choice	30 @31	24 @30
Fore quarters, choice	21 @21½	19 @20

Beef Cuts.

Steer loins, No. 1	@41	@39
Steer loins, No. 2	@37	@35
Steer short loins, No. 1	@51	@48
Steer short loins, No. 2	@45	@41
Steer loin ends (hips)	@31	@30
Steer loin ends, No. 2	@30	@29
Cow loins	@22	@25
Cow short loins	@25	@30
Cow loin ends (hips)	@19	@21
Steer ribs, No. 1	@27	@27
Steer ribs, No. 2	@26	@25
Cow ribs, No. 2	@18	@17
Cow ribs, No. 3	@14	@15
Steer rounds, No. 1	@22	@19½
Steer rounds, No. 2	@21½	@19
Steer chucks, No. 1	@18½	@18
Steer chucks, No. 2	@17½	@17
Cow rounds	@18½	@17½
Cow chucks	@15	@15
Steer plates	@14½	@15
Medium plates	@11½	@12½
Briskets, No. 1	@19	@21
Steer navel ends	@10½	@10½
Cow navel ends	@11	@12
Fore shanks	@13	@13½
Hind shanks	@10	@10
Strip loins, No. 1, boneless	@60	@55
Strip loins, No. 2	@50	@50
Sirloin butts, No. 1	@37	@35
Sirloin butts, No. 2	@27	@28
Beef tenderloins, No. 1	@75	@75
Beef tenderloins, No. 2	@70	@70
Rump butts	25 @30	20 @30
Flank steaks	@27	@27
Shoulder clods	19 @22	19 @20
Hanging tenderloins	@20	@18
Insides, green, 6@8 lbs. av.	@21	..
Outsides, green, 5@6 lbs. av.	@19½	..
Knuckles, green, 5@6 lbs. av.	@22	..

Beef Products.

Brains (per lb.)	@14	12 @13
Hearts	@12	@10
Tongues, 4@5	35 @36	@65
Sweetbreads	@38	@45
Ox-tails, per lb	@18	@17
Fresh tripe, plain	7 @ 8	7 @ 8
Fresh tripe, H. C	@10	@10
Livers	18 @22	16 @24
Kidneys, per lb	@17	@15

Lamb.

Choice lambs	@21	@28
Medium lambs	@19	@27
Choice saddles	@25	@32
Medium saddles	@23	@30
Choice fores	@16	@24
Medium fores	@15	@22
Lamb fries, per lb	@33	@33
Lamb tongues, per lb	@16	@16
Lamb kidneys, per lb	@30	@30

Mutton.

Heavy sheep	@ 9	@15
Light sheep	@12	@17
Heavy saddles	@11	@17
Light saddles	@14	@18
Heavy fores	@ 7	@13
Light fores	@10	@14
Mutton legs	@18	@21
Mutton loins	@12	@15
Mutton stew	@ 8	@10
Sheep tongues, per lb	@16	@15
Sheep heads, each	@12	@10

Fresh Pork, Etc.

Pork loins, 8@10 lbs. avg.	@23	@20
Picnic shoulders	@16	@14½
Skinned shoulders	@16½	@15
Tenderloins	@45	@45
Spare ribs	@13½	@12
Back fat	@13	@14
Boston butts	@20	@18
Hocks	@12	@12
Tails	@14½	@12
Neck bones	@ 6	@ 4½
Slip bones	@14	@14
Blade bones	@14	@13
Pigs' feet	@ 7	@ 6
Kidneys, per lb	@11	@11
Livers	@ 8	@ 7
Brains	@14	@14
Ears	@ 7	@ 6
Snouts	@ 7	@ 7
Heads	@ 9	@ 9

Veal.

Choice carcass	22 @23	24 @25
Good carcass	15 @20	18 @23
Good saddles	28 @30	25 @30
Good backs	16 @19	18 @20
Medium backs	13 @14	12 @14

Veal Products.

Brains, each	15 @16	14 @15
Sweetbreads	@80	@75
Calf livers	@65	@57

DOMESTIC SAUSAGE.

Fancy pork sausage, in 1-lb. cartons	@27
Country style sausage, fresh in link	@22
Country style sausage, fresh in bulk	@21
Country style sausage, smoked	@25
Frankfurts in sheep casings	@23
Frankfurts in hog casings	@22
Bologna in beef bungs, choice	@19
Bologna in cloth, paraffined, choice	@16½
Bologna in beef middles, choice	@18½
Liver sausage in hog bungs	@19
Smoked liver sausage in hog bungs	@24
Liver sausage in beef rounds	@13
Head cheese	@18
New England luncheon specialty	@27½
Minced luncheon specialty	@20½
Tongue sausage	@25
Blood sausage	@18
Polish sausage	@21
Souse	@16

DRY SAUSAGE.

Cervelat, choice, in hog bungs	@49
Thuringer Cervelat	@25½
Farmer	@32
Holsteiner	@30
B. C. Salami, choice	@49
Milano Salami, choice, in hog bungs	@45
B. C. Salami, new condition	@28
Frisses, choice, in hog middles	@40
Genoa style Salami	@53
Pepperoni	@40
Mortadella, new condition	@25
Capicolli	@52
Italian style hams	@40
Virginia hams	@55

SAUSAGE IN OIL.

Bologna style sausage in beef rounds—	
Small tins, 2 to crate	$6.75
Large tins, 1 to crate	7.75
Frankfurt style sausage in sheep casings—	
Small tins, 2 to crate	8.00
Large tins, 1 to crate	9.00
Frankfurt style sausage in hog casings—	
Small tins, 2 to crate	7.50
Large tins, 1 to crate	8.50
Smoked link sausage in hog casings—	
Small tins, 2 to crate	7.00
Large tins, 1 to crate	8.00

SAUSAGE MATERIALS.

Regular pork trimmings	10½@11
Special lean pork trimmings	@17
Extra lean pork trimmings	@19½
Neck bone trimmings	12½@13
Pork cheek meat	10 @10½
Pork hearts	10½@11
Native boneless bull meat (heavy)	@15½
Boneless chucks	@13¼
Shank meat	@12½
Beef trimmings	@11
Beef hearts	@ 8½
Beef cheeks (trimmed)	@10
Dressed canners, 350 lbs. and up	@10
Dressed cutter cows, 400 lbs. and up	@10½
Dr. bologna bulls, 600 lbs. and up	@12¼
Beef tripe	@ 6
Pork tongues, canner trimmed S. P.	@16½

SAUSAGE CASINGS.

(F. O. B. CHICAGO)

Beef casings:	
Domestic round, 180 pack	30 @ 35
Domestic round, 140 pack	40 @ 45
Wide export rounds	50 @ 55
Medium export rounds	38 @ 43
Narrow export rounds	50 @ 55
No. 1 weasands	@ 16
No. 2 weasands	@ 10
No. 1 bungs	32 @ 34
No. 2 bungs	@ 25
Regular middles	95 @1.00
Selected wide middles	@2.35
Dried bladders:	
12/15	@2.00
10/12	@1.65
8/10	@1.25
6/8	@ 85
Hog casings:	
Narrow, per 100 yds	@2.75
Narrow, special, per 100 yds	@2.25
Medium, regular, per 100 yds	@1.25
Wide, per 100 yds	@1.00
Extra wide, per 100 yds	@1.00
Export bungs	33 @ 34
Large prime bungs	22 @ 23
Medium prime bungs	10 @ 11
Small prime bungs	6 @ 7
Middles	@ 20
Stomachs	8 @ 10

VINEGAR PICKLED PRODUCTS.

Regular tripe, 200-lb. bbl	$15.00
Honeycomb tripe, 20-lb. bbl	20.00
Pocket honeycomb tripe, 200-lb. bbl	21.00
Pork feet, 200-lb. bbl	16.50
Pork tongues, 200-lb. bbl	77.00
Lamb tongues, long cut, 200-lb. bbl	58.00
Lamb tongues, short cut, 200-lb. bbl	71.00

DRY SALT MEATS.

Extra short clears	@12½
Extra short ribs	@12½
Short clear middles, 60-lb. avg	@15
Clear bellies, 18@20 lbs	@14
Clear bellies, 14@16 lbs	@14⅜
Rib bellies, 20@25 lbs	@14
Rib bellies, 25@30 lbs	@13¾
Fat backs, 10@12 lbs	@ 9½
Fat backs, 14@16 lbs	@11½
Regular plates	@10½
Butts	@ 9¼

WHOLESALE SMOKED MEATS.

Fancy reg. hams, 14@16 lbs	@27
Fancy skd. hams, 14@16 lbs	@29
Standard reg. hams, 14@16 lbs	@24¾
Picnics, 4@8 lbs	@20½
Fancy bacon, 6@8 lbs	@32
Standard bacon, 6@8 lbs	@27½
No. 1 beef ham sets, smoked—	
Insides, 8@12 lbs	@47
Outsides, 5@9 lbs	@41
Knuckles, 5@9 lbs	@43
Cooked hams, choice, skin on, fatted	40 @41
Cooked hams, choice, skinless, fatted	@43
Cooked picnics, skin on, fatted	24 @28
Cooked picnics, skinned, fatted	@29
Cooked loin roll, smoked	48 @49

BARRELED PORK AND BEEF.

Mess pork, regular	$ @27.50
Family back pork, 24 to 34 pieces	@32.50
Family back pork, 35 to 45 pieces	@32.50
Clear back pork, 40 to 50 pieces	@25.50
Clear plate pork, 25 to 35 pieces	@20.00
Brisket pork	@25.00
Bean pork	@20.00
Plate beef	@29.00
Extra plate beef, 200 lb. bbls	@30.00

COOPERAGE.

Ash pork barrels, black iron hoops	$1.57½@1.60
Oak pork barrels, black iron hoops	1.65 @1.67½
Ash pork barrels, galv. iron hoops	1.77½@1.80
White oak ham tierces	@3.12½
Red oak lard tierces	2,37½@2.40
White oak lard tierces	2.57½@2.60

OLEOMARGARINE.

Highest grade natural color animal fat margarine in 1-lb. cartons, rolls or prints, f.o.b. Chicago	@25
White animal fat margarines in 1-lb. cartons, rolls or prints, f.o.b. Chicago	@19½
Nut, 1-lb. cartons, f.o.b. Chicago	@17
(30 and 60-lb. solid packed tubs, 1c per lb. less.)	
Pastry, 60-lb. tubs, f.o.b. Chicago	@15

ANIMAL OILS.

Prime edible lard oil	@12¼
Headlight burning oil	@11¾
Prime winter strained	@11⅛
Extra winter strained	@11¼
Extra lard oil	@10⅞
Extra No. 1	@10¼
No. 1 lard	@ 9¾
No. 2 lard	@ 9½
Acidless tallow oil	@ 9½
20 D. C. T. neatsfoot	@16¾
Pure neatsfoot oil	@12½
Special neatsfoot oil	@11⅛
Extra neatsfoot oil	@10¾
No. 1 neatsfoot oil	@10

Oil weighs 7½ lbs. per gallon. Barrels contain about 50 gals. each. Prices are for oil in barrels.

LARD.

Prime steam	@10.57½
Prime steam, loose	@ 9.72½
Kettle rendered, tierces	@10.75
Refined lard, boxes, N. Y.	@11.25
Leaf, raw	@ 9.37½
Neutral, in tierces	@12.00
Compound, acc. to quantity	@11.50

OLEO OIL AND STEARINE.

Oleo oil, extra, in tierces	11½@11¾
Oleo stocks	9¾@10
Prime No. 1 oleo oil	10½@10⅝
Prime No. 2 oleo oil	9⅜@ 9⅝
Prime No. 3 oleo oil	9 @ 9¼
Prime oleo stearine, edible	8½@ 8¾

TALLOWS AND GREASES.

Edible tallow, under 1% acid, 45 titre	7¼@ 7½
Prime packers' tallow	6¾@ 7
No. 1 tallow, 10% f.f.a	6⅜@ 6½
No. 2 tallow, 40% f.f.a	5½@ 5¾
Choice white grease	6⅜@ 6½
A-White grease	6⅛@ 6¼
B-White grease, max. 5% acid	6 @ 6¼
Yellow grease, 10@15% f.f.a	5¾@ 6
Brown grease, 40% f.f.a	5¼@ 5½

VEGETABLE OILS.

Crude cottonseed oil in tanks, f.o.b. Valley points, nom., prompt	7⅜@ 7½
White, deodorized, in bbls., f.o.b. Chgo.	10¼@10¾
Yellow, deodorized, in bbls.	10 @10¼
Soap stock, 50% f.f.a., f.o.b	1⅞@ 2
Corn oil, in tanks, f.o.b. mills	7⅝@ 7¾
Soya bean, f.o.b. mill	8½@ 8¾
Cocoanut oil, seller's tanks, f.o.b. coast	6⅜@ 6½
Refined in bbls., c.a.f., Chicago, nom.	9½@ 9¾

Retail Section

Too Much Overhead in Meat Retailing is Chief Cause of Trouble

What is the matter with retail meat distribution?

Should the retailer be relieved of his job of meat cutter, so he can devote his time and attention to meat merchandising?

Are the wastes so often believed to exist in retailing of meats due to market preparation of retail cuts?

Could this waste be overcome by packinghouse preparation of fresh meats ready for distribution to the ultimate consumer?

Joseph F. Seng, veteran retail meat dealer of Milwaukee, Wis., thinks not. In a recent letter to THE NATIONAL PROVISIONER Mr. Seng raises objection to the plan proposed by a large packer to market packaged identifiable fresh meats, as outlined in THE NATIONAL PROVISIONER of January 25, 1930, and in current popular business magazines.

Ideas of Veteran Retailer.

Mr. Seng is one of the best known and most-widely respected retailers in the country, and as such his point of view is of interest.

In this communication he says:

Customer Wants to Choose Cuts.

Dear Mr. Editor:

I differ most emphatically with my good friend, Mr. Louis F. Swift, on one point that he makes regarding meats cut at the packinghouse plants and offered to the public through the quick-freezing process.

The much-heralded frozen haddock fillet is already showing a noticeable lack of demand, and the same is going to happen with frozen packages of cut meats.

The average customer is inclined to exercise his or her privilege of selection as to cuts, pounds and prices. The way they want it trimmed is also an important factor, as well as the prejudice to frozen or storage meats.

All other points are commendable, especially the closer cooperation between the various branches of the meat industry.

Too Many Meat Distributors.

May I quote from an address given by me at the Wisconsin Retail Market Men's state convention last October, in which I said that the greatest expense in meat distribution was that there were too many distributors.

Suppose we take a radius of three city blocks each way from a central point. Three blocks to the North there are four markets, to the South two, and to the West two, making eight markets within the described square. Two already have taken the count at this writing.

High Prices Due to High Overhead.

If the business done in these eight markets could be concentrated into one —a thing that could easily be done, with very little extra overhead for this particular one—it would result in great savings.

Each of these eight markets has an overhead of from $150 to $200 per week, $600 to $800 per month. Taking the average for the eight markets at $700 per month, there is a total overhead of $5,600 for the eight. With an additional expense of $300, one market could do all the business now done in the eight, and save $4,600 a month.

This condition exists in every city and village in the country. I am neither wise enough nor fool enough to offer a way in which this condition could be remedied, yet its existence cannot be denied.

I just want to call the attention of the meat producers and distributors of this country to the cause of the trouble.

It's not in the profit of the distributor, but in the overhead caused by too much service and convenience.

Very truly yours,

J. F. SENG

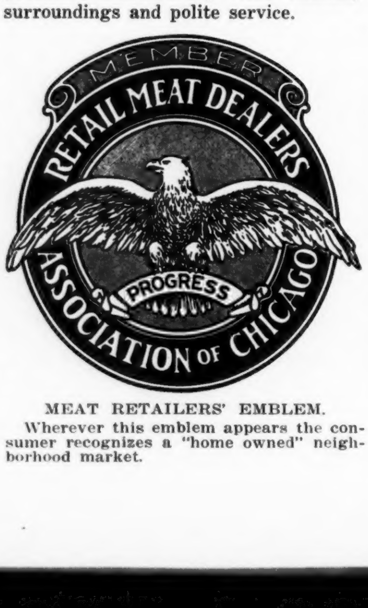
Milwaukee, Wis.

Retail Meat Dealers to Increase Trade by Weekly Radio Broadcast

Chicago retail meat dealers have gone on the air to tell housewives the advantages of patronizing home-owned stores operated by members of the Retail Meat Dealers Association.

Identification of such stores has been provided by the display on the door or window of each store of an emblem picturing a gold eagle on a red, white and blue background.

This was explained to the housewives during the first broadcast which lasted for one hour on Monday evening, February 24. At the same time the radio listeners were told that this emblem assures them of the highest quality meat products, immaculately clean sanitary surroundings and polite service.



MEAT RETAILERS' EMBLEM.
Wherever this emblem appears the consumer recognizes a "home owned" neighborhood market.

Three broadcasts a week will be given and the program will extend over a year's time. The broadcast is made over Station WIBO, on Monday evening from 7:30 to 8:30 and on Wednesday and Friday mornings from 10:15 to 10:45.

Walter Kay, president of the Central Association of Retail Meat Dealers, broadcasted the retailers' first message to the public. In the course of this broadcast, he said:

"I wonder if you have ever considered what a factor your neighborhood meat dealer—the man who owns his own market—is in your community. Out of personal pride and respect for you, his friend and neighbor, he serves only the highest quality meat products.

"He has done everything possible to make his store inviting to the most fastidious clientele. His clerks are attired in spotlessly clean, white uniforms.

"An important point for you to consider is that the money you spend with him is deposited in your local neighborhood bank and spent by him in your own neighborhood; truly, therefore, your neighborhood meat dealer is a major contributing factor to the prosperity of your community and neighborhood property values."

At intervals throughout the entertainment program the part the retail meat dealer plays in the life of the community and the service he is prepared to give meat buyers, are stressed.

PACKER AGAINST RETAILING.

It is unwise for the large packer to go into the business of selling his product at retail, according to Louis F. Swift, president of Swift & Company.

Mr. Swift made this statement in a recent article in a well-known business magazine. It may be regarded as somewhat significant, in view of the widespread speculation regarding the entry of the larger packers into the retail meat field in case the consent decree is modified as these packers are asking.

"It has seemed clear that it would be unwise for the large packer to go into the business of selling his product at retail, just as it would be equally unwise for the chain store to go into the complicated business of meat packing," Mr. Swift said.

"This would involve duplication of equipment and effort all around. Chain stores would have to provide new plants, personnel, refrigerated warehouses, and transportation service.

"The large packer would have to secure expensive retail locations and enter the retail grocery business as well, if he fell in line with the obvious trend in retailing. Duplication of effort on such a scale would be uneconomical and socially wasteful."

Recognizing that retail chain stores have come to stay, and that chain groceries will find it a matter of business policy to operate meat departments in conjunction with grocery departments, Mr. Swift said that his company is prepared to keep its nation-wide wholesale distributive system in step with the new developments in retail distribution.

NEWS OF THE RETAILERS.

Lott's Cash Market, Salida, Cal., has engaged in the meat and grocery business.

Patrick W. McMahon is about to open a meat market at 379 West Western ave., Muskegon, Mich.

Russell G. Smith has opened a meat market at 700 Lexington ave., Dayton, Ohio.

P. I. Helm & Son have engaged in the meat and grocery business at 803 South Freedom ave., Alliance, O.

Joe Vallocio has opened the Universal Meat Market on Second st., Universal, Ind.

G. E. Glander, Liberty, Ind., has been succeeded in the meat business by H. E. Page.

Joseph Marek has purchased the meat market and grocery at 1059 Vance st., Toledo, O., from Wanda Bojarski & Son.

Fred W. Trame has purchased the Ideal Meat Market, Ottawa, O., from Edward C. Kiene.

George Clark has opened the Lakeside Market at 1035 Tennessee ave., Fort Wayne, Ind.

Claude C. Dragoon, Parker, Ind., has been succeeded in the meat business by Elmer Younge.

Charles T. Keirsey has purchased the Quality Pork Store, 263 Yamhill st., Portland, Ore.

Fred Stilwell, Chinook, Wash., has sold out his meat business to Harry Barzee.

Tell This to Your Trade

Under this heading will appear information which should be of value to meat retailers in educating their customers and building up trade. Cut it out and use it.

MUSHROOM SAUCE.

Mushroom sauce enables the housewife to give variety to steaks, chops and other meats. Canned or fresh mushrooms may be used. If fresh are used they should first be washed, the caps separated from the stems, and the stems cut in pieces. One pound of mushrooms should be cooked in two tablespoons of butter, in a covered pan for five to ten minutes at a moderate heat. They are then seasoned and are ready to serve with the meat.

Watch the "Wanted" page for bargains.

LOCATING THE STORE.

People will go out of their way to spend their money at a store which dispenses service and merchandise that pleases them. But other things being equal, store location is important in attracting and holding trade.

There are factors which should be taken into consideration before coming to a decision. Among these are:

What is the character of the trading area?

Is the location on busy side of street?

Is the building located favorably as regarding street car stops and automobile parking space?

How many people pass the store daily?

What percentage of these are possible purchasers of meats?

Will the surroundings attract buyers? Is there sufficient protection from sun, wind and snow? Is the structure suitable for the business?

What is the competition?

WHOLESALE DRESSED MEAT PRICES.

Wholesale prices of Western dressed meats quoted by the U. S. Bureau of Agricultural Economics at Chicago and Eastern markets on Feb. 27, 1930:

Fresh Beef:	CHICAGO.	BOSTON.	NEW YORK.	PHILA.
STEERS (700 lbs. up):				
Choice	$20.00@22.50	$19.50@20.50	$20.00@22.50	$ ....
Good	18.00@20.00	18.00@19.50	18.00@21.00	18.50@20.00
STEERS (550-700 lbs.):				
Choice	20.00@23.50	....	20.00@23.00	21.00@23.00
Good	18.00@20.00	....	18.00@21.00	18.50@20.00
STEERS (500 lbs. up):				
Medium	17.00@18.00	17.00@18.00	17.50@19.00	17.50@18.50
Common	16.00@17.00	16.50@17.00	16.50@17.50	....
STEERS (1):				
Yearling (300-550 lbs.):				
Choice	21.00@24.00	....	21.00@23.50	....
Good	19.00@21.50	....	18.00@21.50	....
Medium	18.00@19.00	....	....	....
COWS:				
Good	15.00@16.50	14.50@15.50	15.50@17.00	15.00@16.00
Medium	14.00@15.00	13.50@14.50	14.00@15.50	14.00@15.00
Common	13.00@14.00	13.00@13.50	13.00@14.00	13.00@14.00
Fresh Veal and Calf Carcasses:				
VEAL (2):				
Choice	20.00@22.00	22.00@24.00	21.00@23.00	22.00@23.00
Good	18.00@20.00	19.00@22.00	19.00@21.00	19.00@21.00
Medium	15.00@18.00	17.00@19.00	16.00@19.00	16.00@19.00
Common	13.00@15.00	15.00@17.00	14.00@16.00	14.00@16.00
CALF (2) (3):				
Good	16.00@17.00	17.00@18.00	....	....
Medium	15.00@16.00	15.00@17.00	....	....
Common	14.00@15.00	14.00@15.00	....	....
Fresh Lamb and Mutton:				
LAMB (38 lbs. down):				
Choice	21.00@23.00	22.00@23.00	19.00@22.00	22.00@23.00
Good	19.00@21.00	21.00@22.00	17.50@21.00	20.00@22.00
Medium	17.00@19.00	19.00@21.00	17.00@20.00	18.00@20.00
Common	15.00@17.00	18.00@19.00	16.00@19.00	16.00@18.00
LAMB (39-45 lbs.):				
Choice	19.00@21.00	21.00@22.00	18.00@21.00	21.00@22.00
Good	18.00@20.00	20.00@21.00	17.00@20.00	20.00@22.00
Medium	17.00@19.00	18.00@20.00	17.00@19.00	18.00@20.00
Common	16.00@17.00	17.00@18.00	16.00@18.00	16.00@18.00
LAMB (46-55 lbs.):				
Choice	16.00@18.00	18.00@20.00	16.00@19.00	19.00@20.00
Good	15.00@17.00	17.00@19.00	15.00@18.00	16.00@18.00
MUTTON (Ewe), 70 lbs. down:				
Good	11.00@13.00	12.00@13.00	10.00@12.00	12.50@13.00
Medium	10.00@11.00	10.00@12.00	9.00@11.00	11.00@12.00
Common	8.00@10.00	9.00@10.00	8.00@ 9.00	10.00@11.00
Fresh Pork Cuts:				
LOINS:				
8-10 lb. av.	22.00@24.00	22.00@23.00	22.00@23.00	21.00@23.00
10-12 lb. av.	21.00@23.00	20.50@22.00	21.00@22.00	20.00@22.00
12-15 lb. av.	19.50@22.00	18.00@19.50	18.00@20.00	18.50@21.50
16-22 lb. av.	17.00@18.00	17.00@18.00	17.00@19.00	17.00@19.00
SHOULDERS, N. Y. style, skinned:				
8-12 lb. av.	16.00@17.00	....	16.50@18.00	17.00@18.00
PICNICS:				
6- 8 lb. av.	....	14.50@15.50	....	....
BUTTS, Boston Style:				
4- 8 lb. av.	18.50@21.00	....	19.00@21.00	19.00@20.50
SPARE RIBS:				
Half Sheets	13.50@15.00	....	....	....
TRIMMINGS:				
Regular	10.00@11.00	....	....	....
Lean	17.00@20.00	....	....	....

(1) Includes heifer yearlings 450 lbs. down at Chicago and New York. (2) Includes "skins on" at New York and Chicago. (3) Includes sides at Boston and Philadelphia.

New York Section

AMONG RETAIL MEAT DEALERS.

The entertainment and dance given by the Eastern District Branch on Lincoln's Birthday proved to be a huge success. The vaudeville numbers for which this Branch is noted, consisted this year of seven acts and were considered superior to any past performance. The attendance also was larger than any in the past, being in the neighborhood of a thousand. The dance music was furnished as usual by Val Wening and it was at 3:30 a. m. the following morning they played "Home, Sweet Home." Following the custom of many years the affair was held in Schwaben Hall, Ridgewood Section of Brooklyn where most of the members are located. Some visitors from other branches were state president David Van Gelder, W. H. Wild and Gus Fernquist of Jamaica Branch, and William Helling of Brooklyn Branch. Practically all the large packers and wholesalers were represented. The great success of the affair was undoubtedly due to the untiring efforts of the various committees and cooperation of the members. The committees included Arrangement, of which Fred C. Riester, was chairman, Floor, with Theo. Meyer, chairman, and Reception, Ed Rath, chairman. Al Haas is president of the Branch.

The first vocational training class consisting of employers held its initial session on Thursday evening, February 27, at the Murray Hill Evening Trade School, 237 East 37th street, New York, with an attendance of 45 men under the leadership of David Van Gelder. These vocational training classes have met with such ready enthusiasm, continued interest and high attendance that it is planned to complete arrangements for an early opening of classes in the Bronx and in Westchester County.

Charles Schuck, treasurer, National Association of Retail Meat Dealers, celebrated a birthday on February 27 with the usual family dinner. The celebration also included the wedding anniversary of Mr. and Mrs. Schuck's daughter.

Congratulations are being extended to Fred C. Riester, executive secretary of the Eastern District Branch and Mrs. Riester upon the birth of a daughter, Adriane, on February 16.

Fred Hirsch, business manager of the Bronx Branch and Mrs. Hirsch, financial secretary of the Ladies' Auxiliary celebrated a wedding anniversary on February 20.

Joseph Eschelbacher, a member of Ye Olde New York Branch and Mrs. Eschelbacher celebrated the 29th anniversary of their wedding on February 24.

The sympathy of the trade is being extended to Mrs. Rudolph Schumacher on the passing of her brother last week.

NEW YORK NEWS NOTES.

A. T. Budgell, wool department, Wilson & Co., Boston, spent several days in New York last week.

Donald MacKenzie, superintendent's office, Swift & Co., Chicago, visited New York during the past week.

Nathan Strauss Mutual Benefit Association will hold its tenth annual dinner-dance at Hotel St. George, Brooklyn, on April 27. M. M. Rosenthal is chairman of the dinner committee.

Samuel Slotkin, president of the Hygrade Food Products Corp. is on a trip which will take in Philadelphia, Boston and points West.

R. S. Coughenor, smoked meats department, Armour and Company, Chicago, visited New York for a few days during the past week.

Another link has been added to the chain of Nathan Strauss, Inc. stores. The new one is located at 24 Legion Parkway, Brockton, Mass.

W. R. Whiteman, auditor, New York territory, Swift & Co., has returned to business after spending a few weeks in the South following his recent illness.

Meat, fish, poultry and game seized and destroyed in the City of New York by the Health Department during the week ending February 22nd, 1930, was as follows: Meat.—Brooklyn, 140 lbs.; Manhattan, 1,250 lbs.; The Bronx, 80 lbs.; Richmond, 30 lbs. Total, 1,500 lbs. Fish.—Manhattan, 29 lbs.; The Bronx, 85 lbs. Total, 114 lbs. Poultry and Game.—Brooklyn, 36 lbs.; Manhattan, 95 lbs. Total, 131 lbs.

SANITARY ASSN. MEETING.

As a climax to a very successful year, the Manhattan Sanitary Inspection Association held its annual meeting and beefsteak dinner on Thursday evening, February 20, at the Columbia Club, New York. This is an organization of New York City packers which maintains a very thorough sanitary inspection service over member plants.

The report of the chairman was received with interest and was followed by the re-election of the old officers for the ensuing year: W. A. Lynde, chairman; H. G. Mills, vice-chairman; A. T. Rohe, treasurer; W. F. Schmidlein, secretary; M. Sanders and A. Strauss, members executive committee. Dr. J. J. Pardue is chief inspector and has for his assistant W. A. Severance.

Following the meeting the members were joined by representatives from the various plants and the guest of the evening, W. H. Noyes, who was one of the founders of the association and chairman for many years. Mr. Noyes resigned from that position in 1926 when he retired to private life. Mr. Noyes gave a very interesting talk on the history of the association from its formation in 1912.

The dinner and entertainment arrangements incident to these annual meetings have been ably cared for by Abe Strauss for the past few years.

A. T. ROHE'S MOTHER PASSES.

His thousands of friends throughout the packing industry were grieved last week to learn of the passing of Mrs. Annie M. Rohe of New York, mother of Albert T. Rohe, of Rohe & Bro. She died at her home on West End ave., New York City, on February 19 at the ripe age of eighty-three, leaving one son, Albert, and a daughter, Mrs. Florence Heller. Two other children preceded her, Oswald F. Rohe and Katherine Kimbel. Mrs. Rohe was a famous mother, and those who knew her considered the association a privilege and an inspiration.

NEW YORK MARKET PRICES

LIVE CATTLE.

Steers, good	$12.75@13.10
Steers, medium	10.75@12.75
Calves, medium, good and choice	7.50@12.50
Bulls, cutter-medium	6.25@ 8.75

LIVE CALVES.

Vealers, good to choice	$14.50@16.50
Vealers, medium	10.25@14.50

LIVE SHEEP AND LAMBS.

Lambs, good to choice	$10.75@11.75
Lambs, medium	9.50@10.75
Lambs, common	8.00@ 9.50
Ewes, medium to choice	4.50@ 6.50

LIVE HOGS.

Hogs, 160-210 lbs.	$ @11.00
Hogs, medium	@11.00
Hogs, 120 lbs	@10.50
Roughs	@ 9.75
Good Roughs	@10.00

DRESSED HOGS.

Hogs, heavy	$ @18.25
Hogs, 180 lbs	@18.25
Pigs, 80 lbs	@18.00
Pigs, 80-140 lbs	@18.00

DRESSED BEEF.

CITY DRESSED.

Choice, native heavy	.24 @26
Choice, native light	.25 @26
Native, common to fair	.23 @24

WESTERN DRESSED BEEF.

Native steers, 600@800 lbs	.21 @22
Native choice yearlings, 400@600 lbs	.23 @24
Good to choice heifers	.20 @21
Good to choice cows	.16 @17
Common to fair cows	.14 @15
Fresh bologna bulls	.16 @17

BEEF CUTS.

	Western.	City.
No. 1 ribs	.30 @32	32 @34
No. 2 ribs	.26 @28	28 @30
No. 3 ribs	.23 @25	23 @27
No. 1 loins	@37	38 @40
No. 2 loins	.33 @36	34 @36
No. 3 loins	.28 @32	30 @33
No. 1 hinds and ribs	.27 @30	26 @32
No. 2 hinds and ribs	.24 @26	24 @27
No. 3 hinds and ribs	.20 @23	22 @23
No. 1 rounds	.20 @21	20 @21
No. 2 rounds	.18 @19	18 @19
No. 3 rounds	.16 @17	17 @18
No. 1 chucks	.19 @21	20 @22
No. 2 chucks	.18 @19	18 @19
No. 3 chucks	.16 @17	17 @18
Bolognas	.16 @17	16 @17½
Rolls, reg., 6@8 lbs. avg		.22 @23
Rolls, reg., 4@6 lbs. avg		.17 @18
Tenderloins, 4@6 lbs. avg		.60 @70
Tenderloins, 5@6 lbs. avg		.80 @90
Shoulder clods		.10 @11

DRESSED VEAL AND CALVES.

Prime veal	.28 @30
Good to choice veal	.23 @26
Med. to common veal	.15 @21
Good to choice calves	.18 @22
Med. to common calves	.14 @18

DRESSED SHEEP AND LAMBS.

Lambs, prime	.26 @27
Lambs, good	.23 @25
Sheep, good	.13 @14
Sheep, medium	.7 @10

FRESH PORK CUTS.

Pork loins, fresh, Western, 10@12 lbs.	.22 @23
Pork tenderloins, fresh	.50 @55
Pork tenderloins, frozen	.45 @50
Shoulders, city, 10@12 lbs. avg	.17 @18
Shoulders, Western, 10@12 lbs	.17½@18
Butts, boneless, Western	.22 @23
Butts, regular, Western	.20 @21
Hams, Western, fresh, 10@12 lbs. avg	.24 @25
Hams, city, fresh, 6@10 lbs. avg	.26 @27
Picnic hams, Western, fresh, 6@8 lbs. average	.16 @17
Pork trimmings, extra lean	.20 @21
Pork trimmings, regular, 50% lean	.12 @13
Spareribs, fresh	.16 @17

SMOKED MEATS.

Hams, 8@10 lbs. avg	.24½@25
Hams, 10@12 lbs. avg	.24 @24½
Hams, 12@14 lbs. avg	.23½@24
Picnics, 4@6 lbs. avg	.18 @18½
Picnics, 6@8 lbs. avg	.17 @17½
Rollettes, 6@8 lbs. avg	.18 @18½
Beef tongue, light	.30 @32
Beef tongue, heavy	.32 @34
Bacon, boneless, Western	.24 @25
Bacon, boneless, city	.21 @22
Pickled bellies, 8@10 lbs. avg	.18 @19

FANCY MEATS.

Fresh steer tongues, untrimmed	26c	a pound
Fresh steer tongues, l. c. trm'd	40c	a pound
Sweetbreads, beef	70c	a pound
Sweetbreads, veal	$1.00	a pair
Beef kidneys	20c	a pound
Mutton kidneys	11c	each
Livers, beef	40c	a pound
Oxtails	22c	a pound
Beef hanging tenders	32c	a pound
Lamb fries	10c	a pair

BUTCHERS' FAT.

Shop fat	@ 1¾
Breast fat	@ 3¾
Edible suet	@ 5¼
Cond. suet	@ 4¼

GREEN CALFSKINS.

	5-9	9½-12½	12½-14	14-18	18 up
Prime No. 1 veals	.18	2.00	2.10	2.30	3.40
Prime No. 2 veals	.16	1.80	1.85	2.05	3.15
Buttermilk No. 1	.15	1.65	1.75	1.95	....
Buttermilk No. 2	.13	1.40	1.50	1.70	....
Branded Gruby	7	.85	.90	1.10	1.60
Number 3	—At value.—				

BUTTER.

Creamery, extra (92 score)	@35
Creamery, firsts (88 to 89 score)	.32½@33½
Creamery, seconds (84 to 87 score)	.30½@32
Creamery, lower grades	.28 @30

EGGS.

(Mixed colors.)

Extra, dozen	.36½@37
Extra, firsts, doz.	.35½@36
Firsts	@35
Checks	@30

LIVE POULTRY.

Fowls, colored, fancy, via express	@27
Fowls, Leghorn, via express	@25

DRESSED POULTRY.

FRESH KILLED.

Fowls—fresh—dry packed—12 to box—fair to good:

Western, 60 to 65 lbs. to dozen, lb.	.28 @29
Western, 48 to 54 lbs. to dozen, lb.	.28 @29
Western, 43 to 47 lbs. to dozen, lb.	.27 @28
Western, 36 to 42 lbs. to dozen, lb.	.26 @27
Western, 30 to 35 lbs. to dozen, lb.	.24 @26

Fowls—fresh—dry pkd.—12 to box—prime to fcy.:

Western, 60 to 65 lbs. to dozen, lb.	.30 @31
Western, 48 to 54 lbs. to dozen, lb.	.30 @31
Western, 43 to 47 lbs. to dozen, lb.	.29 @30
Western, 36 to 42 lbs. to dozen, lb.	.28 @29
Western, 30 to 35 lbs. to dozen, lb.	.27 @28

Turkeys—

Western, young toms, prime to fancy	.36 @38
Western, young hens, prime to fancy	.35 @36

Squabs—

White, ungraded, per lb.	.40 @45

Chickens, Hothouse broilers, barrels:

Prime, under 2 lbs.	.40 @43

Fowls, frozen—dry pkd.—12 to box—prime to fcy.:

Western, 60 to 65 lbs., per lb.	.30 @31
Western, 48 to 54 lbs., per lb.	.30 @31
Western, 43 to 47 lbs., per lb.	.29 @30

Ducks—

Long Island	.23 @25

BUTTER AT FOUR MARKETS.

Wholesale prices of 92 score butter at Chicago, New York, Boston and Philadelphia. week ended Feb. 20, 1930:

	Feb. 14	15	17	18	19	20
Chicago	.26	36	25½	35½	35½	34¾
N. Y.	.36½	37	37	36	35½	35
Boston	.37	37	37	37	36½	36
Phila.	.37½	37½	37½	36½	36½	35½

Wholesale prices of carlots—fresh centralized butter—90 score at Chicago:

36½	35½	35½	35½	35	34¾

Receipts of butter by cities (lbs.):

	Wk. to Feb. 20	Prev. week.	Last year.	—Since Jan. 1— 1930.	1929.
Chicago.	36,812	37,471	Holiday	378,650	Holiday
N. Y.	60,328	55,954	Holiday	486,413	Holiday
Boston.	14,002	10,467	Holiday	109,428	Holiday
Phila.	15,328	18,114	Holiday	153,074	Holiday
Total	126,470	122,006		1,127,565	

Cold storage movement (lbs):

	In Feb. 20.	Out Feb. 20.	On hand Feb. 21.	Same week-day last year.
Chicago	31,118	41,064	7,226,305	Holiday
New York.	32,832	130,521	6 257,559	Holiday
Boston	15,483	85,460	2,905,752	Holiday
Phila.	23,840	17,912	2,712,489	Holiday
Total	103,273	274,957	19,102,105	

FERTILIZER MATERIALS.

BASIS NEW YORK DELIVERY.

Ammoniates.

Ammonium sulphate, bulk, delivered per 100 lbs	2.05@ 2.10
Ammonium sulphate, double bags, per 100 lb. f.a.s. New York	@ 1.90
Blood, dried, 15-16% per unit	@ 3.80
Fish scrap, dried, 11% ammonia 10% B. P. L. f.o.b. fish factory	Nominal
Fish guano, foreign, 13@14% ammonia, 10% B. P. L.	4.30 & 10c
Fish scrap, acidulated, 6% ammonia, 3% A. P. A., f.o.b. fish factory	3.75 & 50c
Soda Nitrate, in bags, 100 lbs. spot	@ 2.16
Tankage, ground, 10% ammonia, 15% B. P. L. bulk	4.00 & 10c
Tankage, unground, 9@10% ammo.	3.75 & 10c

Phosphates.

Foreign bone meal, steamed, 3 and 50 bags, per ton c.i.f.	@26.00
Bone meal, raw, 4½ and 50 bags, per ton, c.i.f.	@36.00
Acid phosphate, bulk, f.o.b. Baltimore, per ton, 16% flat	@ 9.00

Potash.

Manure salt, 20% bulk, per ton	@12.65
Kainit, 12.4% bulk, per ton	@ 9.20
Muriate in bags, basis 80%, per ton	@37.15
Sulphate in bags, basis 90%, per ton	@48.25

Beef.

Cracklings, 50% unground	.87½@ .95
Cracklings, 60% unground	.92½@ .97½

Meat Scraps, Ground.

50%	@58.00
55%	@62.00

BONES, HOOFS AND HORNS.

Round shin bones, avg. 48 to 50 lbs., per 100 pieces	95.00@125.00
Flat shin bones, avg. 40 to 45 lbs., per 100 pieces	@ 85.00
Black or striped hoofs, per ton	45.00@ 50.00
White hoofs, per ton	@ 60.00
Thigh bones, avg. 85 to 90 lbs., per 100 pieces	@110.00
Horns, according to grade	75.00@200.00

1930.

2.10

1.90
3.80

nal

: 10c

: 50c
2.16

: 10c
: 10c

26.00

36.00

9.00

12.65
9.20
37.15
48.25

.95
.97½

58.00
62.00..

NS.

@125.00

@ 85.00
@ 50.00
@ 60.00

@110.00
@200.00